

DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

## **HONDURAS**

### **BAY ISLANDS ENVIRONMENTAL MANAGEMENT PROGRAM II**

**(HO-0198)**

#### **LOAN PROPOSAL**

This document was prepared by the project team consisting of: Michèle Lemay (RE2/EN2), Project Team Leader; Antonio Paz and Edwin Mateo Molina (COF/CHO); Laura Profeta (LEG/OPR); Sergio Ardila, Carlos Pineda, Nadine Schiavi, and Silvia Echeverría (RE2/EN2), who was in charge of document production. Advisors: Priscilla Phelps (RE2/EN2), Marie Gaarder (RE2/SO2).

## CONTENT

### MAP

### EXECUTIVE SUMMARY

I.	FRAME OF REFERENCE.....	1
A.	Overall context .....	1
B.	The significance and local economy of the Bay Islands .....	1
C.	Legal and institutional framework for environmental management .....	4
D.	Advances made with the PMAIB I.....	5
E.	Issues for sustainable tourism.....	7
1.	Population growth, potable water and sanitation .....	7
2.	Land use and environmental problems.....	7
3.	Social impacts of tourism.....	8
4.	Limited institutional capacity .....	9
F.	Recent initiatives .....	10
G.	The country's sector strategy.....	10
H.	The Bank's sector strategy .....	11
I.	The program strategy.....	11
J.	The role of the GEF .....	12
II.	THE PROGRAM.....	13
A.	Objectives.....	13
B.	Results .....	13
C.	Program components.....	13
1.	Consolidation of the regional scheme for environmental management and sustainable tourism (US\$3.719 million).....	13
2.	Expansion of environmental sanitation services (US\$6.92 million).....	18
3.	Municipal strengthening and land management (US\$2.52 million) .....	19
III.	PROGRAM EXECUTION .....	23
A.	The borrower and executing agency.....	23
B.	Program execution and administration.....	23
1.	Program Coordination Unit (PCU).....	23
2.	Commission for Sustainable Tourism and Technical Unit .....	24
3.	Execution of program components.....	25
4.	Financial statements and audits.....	28
C.	Procurement of goods and services .....	28
D.	Execution and disbursement schedule.....	28
E.	Special disbursement to initiate program activities.....	28
F.	Monitoring and evaluation .....	29

IV.	VIABILITY AND RISKS .....	30
A.	Technical and institutional viability .....	30
B.	Socioeconomic viability .....	30
1.	Environmental protection and management .....	30
2.	Expansion of sanitation services .....	31
C.	Financial viability .....	32
D.	Environmental and social considerations .....	33
1.	Environmental and social impact .....	33
2.	Preventive measures and indicators .....	34
3.	Public participation .....	35
E.	Risks .....	36

## **ANNEXES**

ANNEX I	Logical Framework
ANNEX II	Procurement Plan and Schedule

## **BASIC SOCIOECONOMIC DATA**

The basic socioeconomic data for Honduras are available on the Internet at the following address:

<http://www.iadb.org/RES/index.cfm?fuseaction=externallinks.countrydata>

## ABBREVIATIONS

CBO	Community Based Organization
COHDEFOR	Corporación Hondureña de Desarrollo Forestal
EIA	Environmental Impact Assessment
EMS	Environmental Management System
ESMP	Environmental and Social Management Proposal
GEF	Global Environment Facility
HIV/AIDS	Acquired Immune Deficiency Syndrome
ICDF	International Cooperation for Development Fund
MBRS	Mesoamerican Barrier Reef System
PAM	Plan de Acción Municipal
PCR	Project Completion Report
PCU	Program Coordination Unit
PMAIB	Programa de Manejo Ambiental de las Islas de la Bahía
RCST	Regional Council for Sustainable Tourism
SAM	Social Accounting Matrix
SECTUR	Tourism Secretariat
SERNA	Secretariat for Natural Resources and Environment
SINAP	National System of Protected Areas
SINEIA	National System of Environmental Impact Assessments
STD	Sexually Transmitted Disease
UNDP	United Nations Development Program
USAID	United States Agency for International Development

## BAY ISLANDS ENVIRONMENTAL MANAGEMENT PROGRAM II

(HO-0198)

### EXECUTIVE SUMMARY

<b>Borrower:</b>	Republic of Honduras	
<b>Executing agency:</b>	Secretariat for Tourism, through the Honduran Tourism Institute	
<b>Amount and source:</b>	IDB: (FSO)	US\$12.00 million
	Cofinancing: (GEF)	US\$ 2.50 million
	Local:	<u>US\$ 1.80 million</u>
	Total:	US\$16.30 million
<b>Financial terms and conditions:</b>	Amortization Period:	40 years
	Grace Period:	10 years
	Disbursement Period:	3 years minimum
		5 years maximum
	Interest Rate:	1% during 10 years,
		2% thereafter
	Supervision and Inspection:	1 %
	Credit Fee:	0.5 %
<b>Objectives:</b>	<p>The general objective is to consolidate the environmental management program created during the first stage, setting in place a self-sustaining institutional framework that supports environmentally and socially sustainable tourism in the Bay Islands.</p> <p>Specific objectives are to: (i) consolidate and strengthen the regional environmental management scheme for coastal and marine resources throughout the archipelago; (ii) expand the coverage and quality of potable water, wastewater and solid waste management services; and (iii) strengthen local capacity to plan and manage tourism development and growth with an emphasis on land use planning and administration at the municipal level.</p>	
<b>Description:</b>	<p>The program consists of three components as follows: (i) consolidation of the regional scheme for environmental management and sustainable tourism; (ii) expansion of environmental sanitation services; and (iii) municipal strengthening and land management.</p> <p><b>Component 1: Consolidation of the regional scheme for environmental management and sustainable tourism (US\$3.719 million).</b> This component aims to transform the Program set in place during the first stage into a permanent, self-sustaining institutional arrangement for environmental management of the archipelago and adjacent coastal waters. To this end, the Program will strengthen the Executive Commission for Sustainable Tourism of the Bay Islands and its Technical Unit as mechanisms for increased coordination among local and central authorities on</p>	

decisions relating to tourism growth and environmental quality. In addition, the Program will finance establishment and improved management of the regional system of marine and terrestrial protected areas, including demarcation, enforcement, ecotourism infrastructure and the protection and restoration of globally significant ecosystems. A tariff for the Conservation and Management of Protected Areas in the Bay Islands will be implemented to ensure the sustainability of these activities. The component includes a public outreach and participation strategy tailored to the diverse cultural and ethnic context of the Bay Islands with special attention to vulnerable groups and with activities aimed at promoting environmental leadership among local businesses. The strategy includes support for mainstreaming HIV/AIDs interventions related to prevention and education as well as strengthening the capacity of local health personnel.

**Component 2: Expansion of environmental sanitation services (US\$6.69 million).** This component will support the expansion of services for water supply, wastewater treatment and solid waste management to ensure that all islands have improved coverage for public health and environmental quality purposes. Sanitation services will be extended to residents in Utila, Guanaja and newly settled or isolated communities on the island of Roatán that were not part of the first stage. This component will include technical assistance aimed at helping municipalities make the transition towards an effective arrangement for operation and maintenance of services.

**Component 3: Municipal strengthening and land management (US\$2.52 million).** This component aims to strengthen the capacity of the four municipalities as principal agents orienting and reaching decisions pertaining to the sustainable development of the archipelago. The Program will finance the implementation and monitoring of Municipal Action Plans and small-scale pilot activities in land use planning aimed at demonstrating the benefits of growth management. A complementary sub-component will finance the establishment of a fully modernized departmental property registry linked to the four municipal cadastres.

**Bank's country  
and sector  
strategy:**

The Bank's strategy for Honduras is oriented towards supporting Government's efforts at reducing poverty by: (i) accelerating sustainable growth through increased competitiveness and productivity; (ii) increasing efficiency in social safety networks and the productive capacities among the poor; and (iii) strengthening the governance and institutional capacity of the country, including decentralization and local economic development.

The tourism sector features prominently in the Government of Honduras's overall strategy to promote economic growth. The Tourism Secretariat's goal for the sector is to promote sustainable

tourism development that is both equitable and socially responsible with a view of improving the quality of life of the population.

**Environmental/  
social review:**

The Program will have an overall positive environmental impact in terms of: (i) increased local capacity for environmental management; (ii) enhanced protection of globally significant coastal and marine ecosystems; (iii) reduction of contaminated discharges in coastal waters; and (iv) enhanced incentives for compliance including consistent reporting on environmental trends and other mechanisms for promoting accountability. The Program is also expected to have an overall positive social impact as a result of improved access to safe drinking water and wastewater services, including in the most isolated and poorest communities. The Program will not result in significant or foreseeable adverse environmental or social impact due to the nature, scale and location of construction and post-construction activities. Preventive and mitigation measures have been incorporated into the Program Operating Regulations and specifications, including a participatory oversight mechanism that links all four municipal environmental units and is designed to strengthen the application of corrective measures.

**Benefits:**

The Program's direct beneficiaries will be an estimated 20,000 residents living primarily in poor urbanizing neighborhoods or small fishing communities to receive improved services for water supply, wastewater treatment and solid waste collection and treatment. In addition, local businesses including dive operators and an estimated 1,600 artisanal fishers that directly depend on the archipelago's marine resources will benefit in terms of employment and income from the improvements in the system of protected areas and reduced rates of environmental deterioration in priority areas on all three islands as measured by water quality and reef health. Residents will also benefit from improved municipal services and access to more efficient and reliable property registration, including 5,800 low-income households to gain secure property rights.

**Risks:**

Three key issues received special attention during preparation of this second stage. The first issue was the capacity of all four municipalities to coordinate their actions and to reach an agreement with the central government on the establishment of a sustainable arrangement for environmental management. To address this issue and minimize the risk of future conflicts, all municipalities received technical assistance and strengthening through a technical cooperation (ATN/KB-7787) aimed at building local ownership in the permanent, decentralized program. This effort culminated in the creation of the Executive Commission for Sustainable Tourism that includes all four municipalities, the local private sector and key representation from central government. To further mitigate risks during execution, the Commission will receive technical assistance in carrying out a common work program and in establishing the



financial mechanism that will ensure the sustainability of the environmental management program. The second issue was the expansion of basic services in the municipalities of Roatán and José Santos Guardiola simultaneous with the establishment of the institutional arrangement for operation and maintenance of systems financed during the first stage. An institutional risk exists if the pace and sequence of constructing new systems exceed the managerial, technical and commercial capacity of the recently created Municipal Services administrations. Technical assistance will be provided to these administrations at the outset and prior to the expansion of the systems to mitigate this risk. The third issue was the uncertainty in projecting growth and urban development trends. A study was undertaken during project preparation of the factors underlying economic growth and land use changes in the archipelago. In addition to improving projections of future demand for services, the results of the study will be used to build capacity within the Commission and the municipalities to analyze the full economic implications of growth.

**Special  
contractual  
conditions:**

**Conditions precedent to first disbursement**

- (a) Restructuring and redefinition of functions of the Program Coordination Unit (PCU) within SECTUR and selection of the Program Director (para. 3.2).
- (b) Entry into effect of the Program Operating Regulations previously agreed upon between SECTUR and the Bank (para. 3.8).

**Special disbursement:** Up to the equivalent of US\$400,000 out of the resources of the loan may be disbursed upon compliance with the General Conditions precedent to first disbursement, in order to support activities relating to compliance with the special conditions precedent and in particular the activities mentioned in paragraph 3.24.

**Other special contractual conditions**

- (a) The inter-institutional coordination agreements between the Tourism Secretariat (SECTUR), the Secretariat for Natural Resources and Environment (SERNA) and the *Corporación Hondureña de Desarrollo Forestal (COHDEFOR)*, referred to in para. 3.13, SECTUR and the Municipalities, referred to in para. 3.18, and SECTUR and the Supreme Court of Justice, referred to in para. 3.19, shall be entered into within the time periods or prior to the events specified in such paragraphs.
- (b) Prior to the commitment or disbursement of resources for personnel, operating costs and investments related to protected areas under sub-component 1(b) [para. 2.13], the Bank shall have been notified of approval of the Global Environment

Facility financing mentioned in para. 2.33.

- (c) Prior to the first call for bids under Component 2 in each municipality participating in the Program, the Government shall present evidence that the respective entity or contractual arrangement, according to a management model for the provision of services and maintenance of infrastructure acceptable to the Bank, has been established (para. 3.16).
- (d) The Borrower and the participating Municipalities shall, within their respective competencies, take the necessary measures to ensure that:
  - (i) The rates charged for water and sanitation services, and for the collection and treatment of solid waste (in addition to, in the case of the operation of wastewater treatment facilities, the transfers to municipalities from the Conservation Tariff which the Borrower shall establish (para. 2.10)) are sufficient to cover the costs referred to in para. 2.25; and
  - (ii) The Municipalities achieve as of the third year of operation of the respective system, a collection rate of at least 85% of annual balances due.

This condition will be incorporated in the agreements between SECTUR and the Municipalities (para. 3.18).

**Poverty-targeting and social equity classification:**

This operation qualifies as a social equity-enhancing project, as described in the indicative targets mandated by the Bank's Eighth Replenishment (document AB-1704). This operation does not qualify as a poverty targeted investment (PTI).

**Exceptions to Bank policy:**

None

**Procurement:**

Acquisition of goods and related services and contracting of civil works financed with the Program's resources will be subject to the Bank's procurement procedures and policies.

International public bidding will be required for the acquisition of goods and related services that equal or exceed US\$350,000, consulting services that equal or exceed US\$200,000 and US\$1 million for civil works. All bidding under these set limits will be carried out following national legislation when its provisions do not contravene the Bank's procurement procedures and policies.



## **I. FRAME OF REFERENCE**

### **A. Overall context**

- 1.1 The coast of Honduras extends over 850 km, with about a third bordering the Gulf of Fonseca along the Pacific while the remainder of the coastal zone stretches along the North Atlantic and includes the archipelago of the Bay Islands. Parts of this coastal zone have been experiencing high rates of economic growth and migration due to the expansion of agro-industrial and manufacturing sectors, forestry, tourism, and aquaculture. The relatively favorable maritime, air and road access conditions of the North Coast combined with its significant natural resource base have allowed the region to improve its competitive position in sectors such as tourism.
- 1.2 Despite progress shown in some productive sectors of the economy in the last decade, two thirds of the country lives in poverty conditions. The promotion of accelerated economic growth, both equitable and sustainable in nature, is seen as one of the key elements of Honduras's poverty reduction strategy. Sustainable development is expected to play an important role in implementing this strategy, with concerted efforts directed at improving the quality of basic services, diversifying local economies and their resilience to natural disasters, strengthening governance, and creating an environment that is conducive to private sector investments that generate employment.
- 1.3 While the sector is small relative to other Central American countries, tourism has been gaining importance in the national economy, moving from fifth to second-ranked activity in terms of foreign exchange between 1995 and 2001, and accounting for US\$256 million in foreign exchange revenues or approximately 10% of all exports. Tourist arrivals have shown a steady growth since 1997, with an estimated 483,300 arrivals in 2001.<sup>1</sup> Prospects for continued growth are good in light of on-going efforts to integrate circuits in Central America.

### **B. The significance and local economy of the Bay Islands**

- 1.4 Located approximately 50 km from Honduras's mainland, the archipelago of the Bay Islands encompasses three main islands and over 60 smaller keys. Although accounting for a very small part of Honduras's coastal zone, the Bay Islands have always represented a strategic asset, by virtue of their location and rich history, and by providing the base for the country's industrial fishing fleet.
- 1.5 Administratively and politically, the Department of the Bay Islands consists of four municipalities: Roatán and Jose Santos Guardiola on the island of Roatán, and the smaller towns of Utila and Guanaja. The coral reefs that surround the archipelago are part of the Mesoamerican Barrier Reef System and provide the main attraction for the tourism-related activities that dominate the local economy.

---

<sup>1</sup> Tourism Secretariat, Statistics Division. This figure does not include cruise ship arrivals.

- 1.6 The Bay Islands exhibit unusually high marine biodiversity in part due to their relative isolation from the mainland and other oceanographic conditions that contribute to the prevailing good marine water quality conditions (i.e., warm, transparent waters that are low in nutrients). Well-developed barrier and fringing reefs are found throughout these waters, where uncommonly high total numbers of coral and fish species have been recorded relative to other Caribbean locations. Encompassing approximately 260 km<sup>2</sup> of land, the islands also support regionally significant mangroves, other wetlands, several endemic amphibians, an endemic pine forest, and other island ecosystems representative of the Caribbean.
- 1.7 With an estimated 31,500 residents,<sup>2</sup> the Bay Islands are culturally and ethnically diverse, including indigenous Garifuna communities, Islanders (Afro-descendents), descendants of British settlers, and Mestizos (*Ladinos*). While the island economy has undergone several shifts, artisanal fisheries continue to be an important traditional economic activity, particularly in isolated Garifuna communities where fish and other marine products are still harvested for subsistence.
- 1.8 The Bay Islands have served as the major anchor site for Honduras's growing tourism industry over the past two decades, accounting for approximately 28% of all tourism arrivals in the last five years. Approximately 50,000 tourists were estimated for the archipelago in 2000, with an additional 60,000 day visitors from cruise ships arriving at Roatán that same year. While most tourists still travel to the islands for diving and, to a lesser extent, sport fishing, this has been undergoing change with the recent expansion of the cruise ship pier and the diversification of recreational services. Total tourism receipts are estimated in the neighborhood of US\$55 million annually.
- 1.9 As such, the Bay Islands' economy depends directly on two sectors – tourism and fisheries, representing approximately 50% of gross island product and both closely linked to the archipelago's environment. All other activities provide services to these sectors, either directly as in the case of transportation or indirectly such as real estate and construction. The dynamic character of these sectors has led to accelerated growth over the last two decades, a phenomenon that has induced population growth rates approaching 8% annually, largely as a result of migration from various parts of Honduras and elsewhere.
- 1.10 The nature of the Bay Islands' economy underscores the importance of protecting the natural resource base and environmental quality of the archipelago and surrounding waters, because local employment and commercial activity depend on them. When an economy is closely integrated with outside markets for commodities and factors, there is specialization in local production for "export," that is, to regional or sometimes international markets. Given a high level of integration with the outside, linkages within small economies are increasingly replaced by linkages between these economies and the outside world. Specialization reflects the local economy's comparative advantage in production for regional markets, and it is accompanied by diversity in consumption supplied by those markets. In the case of the Bay Islands, the marine ecosystem creates a

---

<sup>2</sup> Roatán: 17,331; Santos Guardiola: 7,537; Guanaja: 4,516; Utila: 1,978 (INE statistics, 2002).

unique comparative advantage in three areas: tourism (export of tourist services) oriented towards diving and snorkeling along the reef; fishing; and real estate development (including construction). There is almost no production of other commodities on the Bay Islands. Nevertheless, a diversity of local service activities constitutes non-tradable production activities that are stimulated by changes in island incomes. These activities create income multipliers and policy changes that, as noted below, are large for such an open small economy.

- 1.11 A Social Accounting Matrix (SAM) was developed to help gain an in-depth understanding of the Bay Islands' economy. The production and value-added rows in the SAM<sup>3</sup> were used to estimate and analyze the structure of production and composition of the gross island product (GIP). Table I-1 summarizes the composition of value-added by activity. It was estimated that the total GIP of Roatán, the main island, is just over US\$83 million. The largest source of island value-added is commerce and miscellaneous services, despite the fact that these activities rely heavily on purchases from outside markets and thus represent a major leakage for the Roatán economy. For example, virtually all goods sold in the island's small stores (pulperías) and supermarkets originate from the mainland of Honduras or abroad (principally the United States). Nevertheless, these activities generate a substantial amount of wages and profits, and changes in the demand for their products, therefore, create large income linkages within the local economy. The second largest share of value-added comes from industrial fishing, followed by tourism, industry including fish processing, artisanal fishing and construction.

**Table I-1. ROATÁN GROSS ISLAND PRODUCT AND ITS COMPOSITION**

	<b>Value added (US\$)</b>	<b>Share in Total Island Value Added (%)</b>
Agriculture/cattle	288,287	0.35
Artisanal Fisheries	6,139,943	7.39
Industrial Fisheries	20,194,236	24.29
Tourism Services	11,707,882	14.08
Construction	6,014,985	7.24
Commerce and other services	25,564,064	30.75
Industry	11,295,077	13.59
Real Estate	1,926,610	2.32
<b>Gross Island Product</b>	<b>83,131,083</b>	<b>100.00</b>

- 1.12 Table I-2 summarizes the distribution of value added across factors. Overall, just over two thirds of island value added accrues to capital and just under one third to labor. These value added payments constitute the majority of Roatán households' disposable income. However, households receive additional income from other sources, including remittances from migrants abroad and real estate transactions. Total household income

<sup>3</sup> Economic Study of the Bay Island. Edward Taylor, Antonio Yunez-Naude. September 2002.

for Roatán was estimated at US\$106.6 million, of which 39 percent accrues to white islander households, 29 percent to *Ladino* households, 17 percent to black islander households, and the smallest shares to foreigner (just under 10 percent) and Garifuna (4 percent) households. The large share of income accruing to *Ladino* households reveals the importance of migrants from the mainland in this island economy.

**Table I-2. DISTRIBUTION OF VALUE ADDED ACROSS FACTORS AND INCOME ACROSS HOUSEHOLDS**

Factor Value Added	Total (US\$)	Percentage of Total
Labor	25,685,278	30.90
Capital	55,806,174	67.13
Rent	1,639,631	1.97
<b>Total Value Added</b>	<b>83,131,083</b>	<b>100,00</b>

- 1.13 In summary, the economy of the Bay Islands is not only intimately linked to the natural resource base and environmental quality, it generates benefits that extend to the mainland and impact the national economy. This reinforces the potential gains from sustained environmental management.

### **C. Legal and institutional framework for environmental management**

- 1.14 Development and environmental management in Honduras are governed by an inter-related set of national laws and regulations that span a broad spectrum of public sector responsibilities for the environment, public health and safety, protected areas, and property rights. Of direct relevance to the Bay Islands' sustainable development are the following:
- The Tourism Act of 1993 and several corresponding Executive Orders, including Executive Order No. 087 that sets aside the entire archipelago of the Bay Islands as a tourism zone, thereby designating all land within the Department of the Bay Islands as urban areas.
  - The General Environment Act of 1993 which provides the foundation for both the country's National System of Environmental Impact Assessments (SINEIA) overseen by the Secretariat for Natural Resources and Environment and the National System of Protected Areas (SINAP) overseen by COHDEFOR. The latter includes Executive Order No. 005-97 establishing the waters surrounding the archipelago as the Bay Islands National Marine Park.
  - The Municipal Act of 1990 and the reforms included in Decree 48-91 attributing responsibilities to municipal authorities that include the control and regulation of urban development as well as land administration, and the provision of a range of public services including sanitation.
  - The National Property Registry Act that attributes responsibilities to the Supreme Court for the guarantee of land property titles.

- 1.15 A new Land Use Planning Law (*Ley de Ordenamiento Territorial*) is also under consideration with approval expected in late 2002. A keystone in the Government's decentralization policy, this law includes provisions for creating regional councils that would have responsibility in applying and monitoring policies, regulations and norms for land use and development. These legal provisions combine with an array of by-laws and norms issued by the municipalities for various uses, thereby contributing to the Bay Islands' complex regulatory setting.
- 1.16 Several central government entities formulate development policies, issue regulations and make public sector investments that affect development in the Bay Islands. Prominent among them are the Tourism Secretariat (SECTUR) responsible for promoting Honduras as a destination and for levying a hotel occupancy tax.
- 1.17 Other central government entities include the Secretariat for Natural Resources and Environment (SERNA), which oversees the formal environmental review process for developments, the Governance Secretariat currently heading the decentralization initiative of the new Honduran administration, the Ministry of Public Works and the Fisheries Department within the Secretariat of Agriculture. Traditionally, central government decisions affecting the islands have been made with little or no local consultation. This has resulted in major public sector investments (or approvals of private sector investments) taken without consideration of the carrying capacity or socio-cultural context of the archipelago.

**D. Advances made with the PMAIB I**

- 1.18 The Bank approved the US\$23.9 million PMAIB- 938/SF-HO in 1994 in recognition of the strategic importance of the archipelago to the national economy. Combining baseline studies of coastal resources with improvements in basic sanitation in Roatán y José Santos Guardiola, land administration and institutional strengthening, the Program was designed to maintain the environmental quality that provides the basis for sustainable development of the archipelago.
- 1.19 Overall, the execution of the PMAIB has been satisfactory, particularly once problems associated with a lack of capacity and engagement on the part of the first executing agency were resolved with the transfer of the program to the Tourism Secretariat. The establishment of the Project Coordination Unit (PCU) in Roatán in 1998 by the Tourism Secretariat contributed to the program's satisfactory performance. In addition to recommendations from a partial Project Completion Report prepared in 2000, results of an independent evaluation of lessons learned have been incorporated into the design of the second stage.<sup>4</sup>
- 1.20 The PMAIB has made significant inroads in addressing issues for sustainable tourism and providing tools for preventing further environmental losses. Achievements of the first stage have included: (i) acquisition of an integrated diagnostic and geographic information system for environmental management, including quantitative data bases of

---

<sup>4</sup> See partial Project Completion Report (PCR 938/SF-HO) and G. Gorranson, 2002. Analysis of Lessons Learned from the Bay Islands Environmental Management Program.



physical, chemical and other water quality parameters (coastal/inland), slope stability, reef, mangrove and seagrass conditions. This also includes a long term water resources plan that provides guidance for the conservation of scarce groundwater resources on the island of Roatán; (ii) completion of the cadastre for the entire archipelago (10,700 parcels) and design of a land administration system that has been transferred to the four municipalities for fiscal, legal and land use planning purposes; this has been accompanied by improved services offered by the cadastre and environmental units of each municipality; (iii) improvements in water supply and wastewater collection systems provided to an estimated 11,000 residents in Coxen Hole, French Harbor and Oak Ridge (all in Roatán), thus ensuring an average 60% coverage in these communities; and (iv) completion of a comprehensive zoning scheme that links priority marine and terrestrial sites into a network of protected areas spanning the archipelago. Updates of the program as well as the baseline data and other results are available to the public through the PMAIB's web site (<http://www.islasdelabahia.org>).

- 1.21 Loan 938/SF-HO had disbursed 82% as of September 2002. The construction of a landfill site for Roatán is still pending but its completion is expected by December 2002. While the original targets for individual components of the PMAIB were met, unforeseen obstacles affected many aspects of execution. For example, difficulties in securing public land parcels for water and sanitation facilities caused long delays and led to conflicts with property owners, highlighting the need for much closer coordination with local government and an enhanced capacity for social promotion and negotiation at the community level. The new municipal cadastres, integrated GIS and training of municipal officials are expected to help the identification of suitable municipal land parcels in the future. Relationships between the many cultural and ethnic groups were found to affect decisions on land and natural resources, thus adding considerably to the complexity of execution.
- 1.22 Delays were also encountered in establishing a permanent institutional arrangement for operation and maintenance of basic sanitation services in Roatán and José Santos Guardiola where traditionally the responsibility for maintaining community water systems has been fulfilled by local water boards. Both municipalities have been selecting models during an intensive consultation process with their constituencies and the local water boards. José Santos Guardiola and Roatán decided in July 2002 to create Municipal Public Services Councils with administrations separate from the local government and with representation from users. Both municipalities will be receiving technical assistance towards the implementation of the selected models. Guanaja and Utila have been receiving technical assistance along the same lines with the support of a consultancy financed by the Bank.
- 1.23 Other fundamental lessons learned from the first stage of the PMAIB have included: (i) the need to formalize representation (and accountability) of the municipalities and other stakeholders in setting priorities for land and environmental management; (ii) given the high population growth and rates of land use change occurring in the Bay Islands, there is a need for a dynamic and flexible environmental management program that stresses a local and permanent capacity for solving emerging development-related problems, with a specific emphasis on land, water quality, and sustainable growth; and (iii) the selection and implementation of financial mechanisms to ensure the sustainability

of environmental management services have to proceed in sequence with the design, consultations and gradual implementation of corresponding institutional arrangements. These processes require sufficient time to build consensus and ensure ownership, particularly in a multi-cultural context.

## **E. Issues for sustainable tourism**

- 1.24 Several circumstances have modified the context for environmental management of the archipelago over the course of execution of the PMAIB. Lessons learned as well as emerging problems have brought to light the following issues to be addressed in a second stage of the program: (i) population growth rates far outpace the existing capacity of both central and local governments to guide development and provide for basic services; (ii) poor land use decisions are triggering changes in erosion, sedimentation and other processes, contributing directly to declining coastal water quality, threatening public health, and affecting the health of coastal ecosystems as well as the economic sectors that depend on them; (iii) negative social impacts of tourism and high migration rates are undermining the quality of the destination; and (iv) existing institutional arrangements are not conducive to environmental management of land and coastal areas in an integrated manner.

### **1. Population growth, potable water and sanitation**

- 1.25 Population growth rates have exceeded all original projections, with some municipalities almost doubling in size since 1996. The four municipalities have had to cope with this rapid growth without having the administrative tools, financial resources or the necessary capacity for planning or managing development. Basic sanitation services are still lacking in most communities in Guanaja and to a lesser extent in Utila, as well as in newly settled neighborhoods and isolated poor communities in Roatán and José Santos Guardiola that were not included in the first stage.
- 1.26 Population growth combined with increased tourism demand is placing pressure on scarce groundwater resources, the major source of potable water for island residents and tourists alike. Findings from the hydrogeological study of Roatán financed during the first stage of the PMAIB indicate that some of the aquifers on the island are heavily overdrawn and contaminated, posing a serious threat to public health and carrying capacity. Even with the recent increases in well production and distribution, the improved systems in Oak Ridge, French Harbor and Coxen Hole are not likely to be sufficient for the next decade if recent population growth rates are used to project demand.
- 1.27 The traditional treatment methods, such as pumping untreated wastewater into the ground or discharging it into coastal waters, are no longer suitable and present a threat to public health. Local businesses, island residents and recent migrants are not accustomed to having to pay for treatment services and are not fully aware or prepared for the implications (costs and benefits) of continued growth and migration.

### **2. Land use and environmental problems**

- 1.28 The combined effects of migration and lack of sanitation have led to increasing land use problems and measurable losses in environmental quality in all three islands.

Accelerated construction of resorts and the extension of road networks have placed the archipelago's coastal and marine ecosystems under intense pressure, particularly on Roatán where over 60% of all reefs display dead coral cover in excess of 50%. Among various changes, the loss of forest cover and mangroves, increased sedimentation rates and discharges of untreated wastewater, as well as poorly planned filling and dredging have led to a decline in coastal water quality, particularly near urban areas on each island.<sup>5</sup>

- 1.29 New settlements have spread to hillsides, mangroves and other areas vulnerable to natural hazards in all four municipalities. In Utila for example, the recently settled neighborhood of Campo Nado consists of a network of makeshift houses, many built by filling ecologically sensitive wetland area. Similar cases occur on Roatán and Guanaja. The new settlements have no wastewater treatment or solid waste collection services, with contaminants usually discharged directly into sensitive coastal lagoons. The poorer migrants often depend on nearby protected areas for wood, wildlife and subsistence fisheries, creating conflicts with ecotourism operators.
- 1.30 Land management features prominently among the issues that have rallied the support of the four municipalities during the first stage of the PMAIB. An aggressive real estate market in the early 1990's combined with unclear property rights led to accelerated encroachment of public lands including areas that had been proposed as protected areas. The Supreme Court of Justice placed a ban in 1996 on the registration of land titles issued by municipalities in the Bay Islands. This prevented lower income residents that had acquired legal rights to land through occupation to receive secure title documents and presented a serious obstacle to municipal land use planning. Completion of the cadastres during the first stage of the PMAIB cleared the way for the Supreme Court to lift the ban in August 2002, thus offering an unprecedented opportunity to address land management problems in upcoming years.

### **3. Social impacts of tourism**

- 1.31 The Bay Islands display the characteristics common to 'intermediate-impact' destinations: migration rates leading to increasing resource use conflicts; labor and capital markets shifting from traditional pursuits to tourism; and tensions as traditional views are threatened.<sup>6</sup> Nonetheless, the islands are characterized by a strong sense of cultural identity, closely linked to its historical roots and maintained by long-standing community networks organized along ethnic and religious groups. These networks represent vital communication channels to prepare communities for the changes associated with tourism growth as well as the only available support groups for the poorest segments of the population. Unforeseen conflicts encountered during the first stage of the PMAIB, particularly over water and land resources, underscore the complexity of these networks and the need to factor them into the Program's future communication and participation strategy.

---

<sup>5</sup> Lafforge, Pateron, Salbert, Ricard. 2000. Diagnostic of water quality in Roatán, Utila and Guanaja.

<sup>6</sup> J. McElroy, 2002. The Impact of Tourism in Small Islands: a Global Comparison. *Tourism, Biodiversity and Information*.

- 1.32 With more than half of all cases reported from Central America, Honduras carries a disproportionate burden of the HIV/AIDS epidemic in the region. The Special Law on AIDS, passed in 2000, represents a major advance for the Honduran national response to the HIV-epidemic. However, discrimination based on HIV status is widespread, in particular in relation to employment, and little has been done to manage the issue of HIV/AIDS. The Bay Islands are in a particularly vulnerable situation by virtue of the dependence on tourism, mobile populations and increasing levels of prostitution, scarce basic health services, drug and alcohol abuse, and a unique mix of ethnic population groups (some with potentially high HIV-prevalence).
- 1.33 There are no reliable data on prevalence rates in the Bay Islands, due mainly to the passive surveillance of HIV, widespread unavailability of tests and a defective health data transmission system. Interviews with health officials indicate that local concerns exist along with a willingness to take actions that would complement the national initiative underway. Local NGOs and community organizations on the islands have also expressed a keen interest in receiving education and training in order to carry out HIV/AIDS related activities. Addressing the issue of HIV/AIDS at a local level would allow the program to mitigate possible adverse social impacts related to tourism as well as strengthen civil society support for and involvement in the program.

#### **4. Limited institutional capacity**

- 1.34 Diagnostics undertaken during preparation indicate that the four municipalities share common problems such as: (i) inefficient administrative procedures; (ii) weak financial systems; (iii) inefficient provision of public services and inadequate tariff structures; (iv) the absence of land use plans, environmental regulations and construction bylaws to promote sustainable development in urban and suburban areas; (v) poorly trained municipal personnel; and (vi) the absence of effective consensus building mechanisms. The four municipalities also face distinct financial, administrative and other difficulties that reflect their relative capacity to collect and allocate revenues, provide services and manage growth. As with land administration activities during the first stage of the PMAIB, there is a need to introduce consistent standards and reduce the gaps in capacity in all aspects of municipal administration as a step toward regional consolidation of the environmental management program.
- 1.35 There have been several failed attempts at creating institutional alliances for environmental management in the Bay Islands. These include the Bay Islands Development Commission created by Legislative Decree No. 83-93 in 1993 with the purpose of promoting integrated development of the Department, a mandate never fulfilled in part owing to problems with representation and resources. In addition, the Bay Islands' Association of Municipalities established in 1996 as a requirement of the PMAIB has yet to assume an active role although there has been renewed interest on the part of mayors to mobilize the Association. The lesson derived from these attempts is that a partnership for environmental management has to build on areas where this is a genuine interest for cooperation, particularly on the part of municipalities.
- 1.36 In this regard, the first stage of the PMAIB has yielded a few institutional gains that should be solidified during a second stage of the program. These include: (i) four

municipalities that have been strengthened through this and other programs in priority functions such as land management; (ii) increased coordination on the part of SECTUR that has consistently assigned high priority to the Bay Islands in its national programs; (iii) the PCU office and personnel operating from Roatán that have contributed to the Program's local presence and accessibility; and (iv) expanding participation of local groups and NGOs' in ecotourism ventures and environmental management activities.

## **F. Recent initiatives**

- 1.37 The Executive Commission for Sustainable Tourism of the Bay Islands (referred to hereafter as the Commission) was created pursuant to Executive Order no 005/2002 on August 6, 2002. Chaired by the Minister of Tourism, the Commission includes the four municipalities, the Environment and Natural Resources Secretariat (SERNA), the Governance Secretariat, the Departmental Governor, and a representative from the private sector from each municipality. The PMAIB PCU serves as the Commission's Secretariat. The Commission's main responsibilities are to: (i) promote consensus on sustainable tourism, environmental and growth management policies at the departmental scale; (ii) oversee the validation and endorsement of the comprehensive zoning plan developed during the first stage of the PMAIB, including the mid-term environmental quality targets; (iii) monitor compliance with the zoning plan and targets; and (iv) offer a forum to discuss adjustments in development, manage conflicts and promote coordination. The Commission, which initiated its work in late August, is also expected to identify and endorse mechanisms for the financial sustainability of the program.
- 1.38 The intent is to have the Commission assume the responsibilities of a permanent, decentralized Regional Council stipulated under the proposed Land Use Planning Law once it comes into effect. In the interim, the Commission is expected to facilitate the transition towards a strengthened and more decentralized institutional arrangement for environmental management and local economic development in the Bay Islands.
- 1.39 Local revenue collection schemes for conservation and tourism activities have been introduced on all three islands. In Utila, the diver operators association, the Bay Islands Conservation Association and the municipality are collecting a US\$3 insurance fee from recreational divers, with proceeds re-invested in a marine patrol program, maintenance of mooring buoys used to prevent anchor damage on reefs, and the operation of a decompression chamber. The Citizen's Environmental Council in Guanaja collects US\$4 from tourists at the airport for conservation purposes pursuant to a cooperative agreement with the municipality. The Municipality of Roatán collects a US\$3 fee for each cruise ship passenger. A willingness to pay study conducted during the first stage and the economic analysis conducted during preparation indicate that an environmental fee, departmental in scope, is feasible and could ensure the long-term sustainability of the Commission and the consolidated environmental management program.

## **G. The country's sector strategy**

- 1.40 The tourism sector is featured prominently in the Government of Honduras' overall strategy to promote economic growth. The Tourism Secretariat's goal for the sector is to promote sustainable tourism development that is both equitable and socially responsible,

with a view of improving the quality of life of the population. Aiming for between 20 to 30% growth rates overall by 2007, the Secretariat has made decentralization, municipal development and natural resources management, and quality of basic services keystones of its strategy for the sector. At several points during preparation, the Government of Honduras has stated that the second stage of the PMAIB represents a strategic investment, with one of its expected results being the transfer of experience, knowledge and capacity to benefit the tourism sector in other parts of the country such as the North Coast and the southern region.

## **H. The Bank's sector strategy**

- 1.41 The Bank's strategy for Honduras is currently under review, with the overall goal expected to be firmly oriented towards supporting Government's efforts at reducing poverty by: (i) accelerating sustainable growth through increased competitiveness and productivity; (ii) increasing efficiency in social safety networks and the productive capacities among the poor; and (iii) strengthening the governance and institutional capacity of the country, including decentralization and local economic development. This operation contributes to these fundamental themes by promoting an effective decentralized scheme for environmental management that is consistent with sustainable growth in tourism. The program offers opportunities to strengthen representation and meaningful participation of Afro-descendent communities and, as such, is consistent with the Bank's Plan of Action for promoting the social inclusion of racial and ethnic minorities. In addition, it strengthens the country's capacity for managing a significant portion of the Mesoamerican Barrier Reef System (MBRS), thereby contributing to regional integration in environmental management.
- 1.42 The fight against HIV/AIDS is a high priority both for the Government and the Bank, and the activities included in the Program are designed to complement national initiatives in this matter, including those emerging under the Global Fund.

## **I. The program strategy**

- 1.43 The strategy for the second stage is to consolidate the institutional arrangements and on-site capacity for environmental management as the foundation for a permanent, self-sustaining program in the Bay Islands. This will include support to the Executive Commission for Sustainable Tourism as a cooperative arrangement that provides for greater representation and effective participation of municipalities, civil society and the private sector in managing the effects of tourism growth on environmental quality. In the process, the Commission will acquire the capacity to use decision support tools developed during the first stage, such as the zoning and water resources plans in combination with municipal environmental regulations, by-laws, monitoring, tariffs, service fees and other financial instruments. On-site capacity for environmental management will be greatly expanded through the establishment of a system of marine and terrestrial protected areas operated jointly with organizations for the purposes of maintaining biodiversity and providing ecotourism services. This will be complemented by a broad-based outreach strategy aimed at maintaining the competitiveness of the Bay Islands as a tourism destination while also mitigating social and cultural impacts of change.

- 1.44 Recognizing the key role of municipalities in development and land use planning, the Program includes a strong focus on building administrative and decision-making capacity within all four of the municipalities of the Bay Islands. To further the process of consolidation, the Program will also support the modernization of the land property registry, the first pilot of its kind to be implemented in Honduras. The institutional strengthening and environmental management will be complemented by a small package of investments in basic sanitation, with a view of expanding coverage to communities and islands not included in the first stage. The emphasis will continue to be on the institutional and financial sustainability of these basic services.

**J. The role of the GEF**

- 1.45 The GEF provides grants to activities that prevent loss of biological diversity, pollution of international waters, depletion of the ozone layer and global climate change. It aims to meet the ‘incremental costs’ of achieving global benefits, defined as the difference between the costs of a project achieving global environmental benefits over and above the costs of an alternative project that a country would have undertaken in its own interests. During the preparation of the Program, a set of activities was determined to be eligible for GEF co-financing under its Operational Program for biodiversity. A technical cooperation financed by a PDF Block B grant (ATN/PD-7841-HO) was used to confirm the GEF contribution to the Program, including the analysis of incremental costs.
- 1.46 The Program is consistent with the strategies and principles of the GEF with respect to: (i) conservation of biodiversity and its sustainable use; (ii) conservation of marine ecosystems and their sustainable use; (iii) maintenance of genetic resources; (iv) empowerment of all stakeholders, including vulnerable groups that depend on biodiversity; (v) national capacity building related to mainstreaming of biodiversity conservation; and (vi) international linkage for developing best practices and promoting their global replication. The GEF grant will be used to support the full participation of all stakeholders in the protection and restoration of coastal and marine ecosystems, including implementation of the environmental oversight mechanism on all three islands, biodiversity-related research and monitoring, the investments for the regional system of protected areas, and the promotion of private sector activities in support of biodiversity conservation. In addition, the grant will be directed to building links between the PMAIB, other part of the MBRS and other archipelagos of global significance as a contribution to best practice and replicable models in decentralized biodiversity conservation.

## **II. THE PROGRAM**

### **A. Objectives**

- 2.1 The purpose of the program is to consolidate the environmental management program created during the first stage, setting in place a self-sustaining institutional framework that supports environmentally and socially sustainable tourism in the Bay Islands.
- 2.2 The program's specific objectives are to: (i) consolidate and strengthen the regional environmental management scheme for coastal and marine resources throughout the archipelago; (ii) expand the coverage and quality of potable water, wastewater and solid waste management services; and (iii) strengthen local capacity to plan and manage tourism development and growth with an emphasis on land use planning and administration at the municipal level.

### **B. Results**

- 2.3 The following are the main results expected from the Program over its 5-year execution period: (i) a departmental zoning plan adopted by the Executive Commission for Sustainable Tourism along with accompanying municipal regulations and standards in all four municipalities issued and disseminated; (ii) seven protected units (4 marine and 3 terrestrial) brought under an intensive management regime for biodiversity conservation and ecotourism; (iii) an additional 5 protected areas (2 marine and 3 terrestrial) demarcated and patrolled; (iv) reduced rates of environmental deterioration in priority areas on all three islands as measured at permanent monitoring stations by marine and surface water quality, reef coral cover and vegetation cover; (v) expansion in the total coverage and quality of services for water supply to benefit 8,390 residents, wastewater treatment (12,047 residents) and solid waste collection and treatment (8,630 residents); (vi) four municipal action plans implemented, aimed at reaching between 3 to 5% increases in net revenues in the period of execution, 10 to 20% increases in annual current revenues, a 40% decrease in arrears in property taxes and a net increase between 10 to 20% of total number of taxpayers; and (vii) 30,000 land property records digitized, 12,000 registry records reconciled with municipal cadastres, and an estimated 40% increase in efficiency of land services. The program's logical framework analysis is presented in Annex I.

### **C. Program components**

- 2.4 The program consists of three components as follows: (i) consolidation of the regional scheme for environmental management and sustainable tourism; (ii) expansion of environmental sanitation services; and (iii) municipal strengthening and land management.
  - 1. **Consolidation of the regional scheme for environmental management and sustainable tourism (US\$3.719 million)**
- 2.5 This component aims to transform the PMAIB into a permanent, self-sustaining institutional arrangement for environmental management of the archipelago and adjacent



coastal waters. The component is organized into three sub-components for execution and monitoring purposes:

- a. Strengthening of the Executive Commission for Sustainable Tourism and its Technical Unit.
- b. Improved on-site operations and investments for the regional system of marine and coastal protected areas.
- c. A public outreach, participation and destination management strategy that will accompany the execution of all components.

2.6 Taken together, these activities will result in improved, systematized procedures for development review in the archipelago, increased coordination among municipalities on matters pertaining to shared natural resources such as marine protected areas and groundwater, enhanced surveillance and enforcement of permit conditions and environmental regulations, as well as widely disseminated information on trends in environmental quality. As a result of this component, development decisions will display greater compliance with environmental quality targets set forth in the departmental zoning plan developed during the first stage.

**a) Strengthening of the Executive Commission for Sustainable Tourism  
(US\$0.991 million)**

2.7 The Program will provide resources to strengthen and support the work program of the Executive Commission for Sustainable Tourism of the Bay Islands in line with the Government of Honduras' progressive strategy for decentralization. The Commission will be supported by a small Technical Unit whose functions will initially be performed by the PCU and which is to be fully financed by revenues collected from the tariff for conservation and environmental management (see par. 2.10) as the operation reaches its fourth year of execution.

2.8 The Program will finance the following activities related to the Commission's work: (i) preparation of detailed bylaws and a comprehensive operating manual for the Commission, its local committees and Technical Unit. This will include procedural guidelines for submissions to the Commission, including grants, permits, concessions and regulatory modifications; (ii) commissioning of policy briefs and in-depth reviews of issues included in the work agenda of the Commission; (iii) departmental-level forums to solicit public opinion and gain support for environmental quality targets. This will include the endorsement and internalization of the water resources conservation plan for Roatán as well as the promotion of consistent standards, tariffs and permit fees as additional incentives for private sector compliance with environmental quality targets; and (iv) training in key policy areas and conflict management and demonstrations on the use of decision support tools for land use planning and development review. The latter will include, for example, simple map-based models to help local decision makers assess the implications of land use, resource allocation and development policies.

2.9 To complement the above, the Program will finance the establishment of the Technical Unit to be permanently based in Roatán and to be staffed by a Coordinator, a Protected Area Manager, a water quality technician, a specialist in social promotion, and support

personnel. In addition to serving as the permanent secretariat for the Commission, the Technical Unit will be responsible for coordinating functions that require cooperation across municipalities including: (i) comprehensive land use planning and monitoring system; (ii) administration of the marine protected area system; (iii) water quality monitoring network; and (iv) local economic development policy and competitiveness. The Technical Unit will be responsible for analyzing and reporting periodically on trends based on a limited set of physical and socio-economic indicators, preparing an annual ‘Sustainable Tourism Report Card’ for broad dissemination as well as monitoring the effectiveness of on-site operations. The Technical Unit will concentrate on the analytical and regional advisory functions needed across the archipelago, including transferring relevant experience to other parts of Honduras and the MBRS. The Technical Unit will also maintain and update the integrated information system created during the first stage and develop new applications for decision-making.

- 2.10 A tariff for the Conservation and Management of Protected Areas in the Bay Islands will be established to further ensure the consolidation and sustainability of the Program. Based on the results obtained during analysis, this tariff is expected to be a single general entrance fee for the departmental system of protected areas (marine and terrestrial) to be charged to tourists (with differentiated rates for national visitors, Central American and other visitors). A fund will be established to receive the revenues collected from the fee. The resources will be destined primarily at: (i) operating of the protected area system; (ii) operating costs of the Technical Unit; (iii) provision of a subsidy to cover operating costs (particularly energy costs) for wastewater treatment facilities in excess of local capacity to pay for such services; and (iv) future investments in environmental management approved by the Commission. The Program will finance a business plan stipulating the operational aspects for collecting the fee and administering the fund (see also Chapter IV, Section C – Financial viability).
- 2.11 The costs of this sub-component include: (i) consulting services for the development of administrative procedures, the business plan and policy briefs as well as the provision of technical assistance and legal advisory services to the Commission; (ii) organization and conduct of departmental level workshops and public education materials on sustainable tourism; (iii) software and equipment upgrades for the environmental and land management information system and new applications; and (iv) personnel and operating costs of the Technical Unit for three years, including the laboratory analysis costs for water quality and the preparation of summary reports for dissemination.

**b) Investments for the regional system of marine and coastal protected areas (US\$2.0 million)**

- 2.12 This sub-component will consolidate the system of protected areas that spans the entire archipelago. Targeted for financing by the GEF, this sub-component will finance the full establishment and management of seven protected areas (4 marine and 3 terrestrial) identified as first order priorities for biodiversity conservation during the preparation of

the program.<sup>7</sup> An additional five protected areas would receive a basic level of management. The investments and activities to be supported in each area are included in management plans formulated during the first stage of the PMAIB and consistent with the regional zoning plan. As a result of these investments, an estimated 21,000 ha of marine ecosystems (coral reefs, coastal lagoons, mangroves) and 5,280 ha of island forests will be brought under a comprehensive management regime.

- 2.13 For each protected area unit identified as first order priority, the Program will finance activities such as physical demarcation of boundaries; the mobilization and on-the-job training of field personnel (including patrol units); search and rescue and communication equipment; other small upgrades such as ecotrails and signage; the acquisition and installation of mooring buoys; and investments to enhance the level of protection of endemic species, restore damaged natural ecosystems such as coral reefs, seagrass beds and mangroves and reduce pressure on biodiversity. In the marine units for example, the latter will include the establishment of a vessel and artisanal fishing gear registry with the participation of local fishers as a transition toward a limited entry system for fisheries; a pilot program of no-take zones and support for introducing alternative sources of employment such as wilderness sport fishing ventures; as well as the installation of four fish aggregating devices designed to reduce pressure over fish stocks in coastal areas. In terrestrial areas, measures will include conservation of priority watersheds (slope stabilization, fire and other natural hazards prevention, regeneration and reforestation).

**c) Public outreach, participation and local destination management  
(US\$0.692 million)**

- 2.14 The first stage of the PMAIB demonstrated the need for a broad-based communication and participation strategy adapted to the unique socio-cultural context of the Bay Islands. A strategy that cuts across all sectors, linking public health, land, environment, property rights, economic development and governance as key aspects of island life will result in greater social awareness of the impacts of tourism and a genuine commitment to maintain the Islands as a quality destination. To this end, the Program will finance: (i) public participation that promotes social inclusion and access to improved environmental conditions for vulnerable groups; (ii) an initiative promoting private sector leadership in environmental management; and (iii) actions to mitigate the potential negative social impacts of tourism and migration.
- 2.15 Building on experience gained during the first stage of the PMAIB and the socio-cultural analysis conducted during preparation, the following measures have been incorporated to the work program to facilitate access to environmental management services by the poorest population segments:
- a. Advance, grassroots campaigns in isolated and/or poor communities, often with the highest illiteracy rates and in greatest need of information on property rights, basic services, health, environment and local risk management. The emphasis will be on

---

<sup>7</sup> Sites selected in Roatán: West End/Sandy Bay (marine), Santa Elena/Barbareta (marine) and Port Royal (terrestrial). Sites selected in Utila: Turtle Harbor (marine/terrestrial). Sites selected in Guanaja: Michael Rock (marine); Guanaja Pine Forest Reserve (terrestrial).

information useful to residents, their rights, and the benefits of participation in key environmental and land management activities. Communication techniques will be tailored to the needs of traditional groups, including the Garifuna, women heads of households, and vulnerable groups. Socio-cultural guidelines for the conduct of the campaigns based on local case studies in potable water, land rights and protected area use were developed during preparation.

- b. Capacity building of community leaders in land use and property regulations, norms and operational rules;
  - c. Establishment of a participatory oversight mechanism for environmental management, whereby local groups (e.g., dive operators, neighborhood groups) will provide on-site, voluntary monitoring of compliance with development permits, Environmental Impact Assessment (EIA) conditions and other regulations, thereby reinforcing local patrols for detecting and reporting violations to each municipal Environmental Unit and subsequent follow-up by the Solicitor General.
- 2.16 To promote leadership in environmental management among local businesses, activities will be included to strengthen and promote a culture of environmental management in tourism operators in the Bay Islands. Businesses such as hotels, restaurants, as well as dive and sports fishing operators will be supported in incorporating environmental best practice and environmental management systems (EMS). Specific activities will include: (i) signage and campaigns targeting the hotel and dive operations; (ii) demonstrations of good business practices for small islands, including recycling and vector control; (iii) at least 30 environmental assessments of hospitality, dive and sports fishing businesses based on best practice questionnaires; (iv) at least four detailed audits of establishments interested in serving as industry leaders in implementing improvements; (v) eight training courses for hotels, and dive and sports fishing operators on best practices and environmental management systems; and (vi) recognition and promotion (through annual environmental awards and a labeling scheme for operators that meet minimum levels of best practices).
- 2.17 This sub-component will include two activities aimed at mainstreaming the objectives of the global HIV/AIDS initiative, consistent with Honduras's national strategy and with a view towards mitigating potential social impacts of continued tourism growth and migration. The first activity will entail strengthening specific HIV/AIDS related capacities of local health personnel, improving the collection, registration, and analysis of data among local health providers in connection with particular diseases (HIV/AIDS, STDs, and TB), as well as establishing a communication and follow-up strategy. Periodic reports of the data, coupled with local press and media releases will serve as an indicator for this activity.
- 2.18 The second activity will consist of local capacity building for HIV/AIDS interventions related to prevention, education and behavior change, and support to community members affected by HIV/AIDS (including to family members and orphans). The activity is divided into two sub-components according to the manner in which they are carried out, whether it is based on (i) a community participatory approach or (ii) peer-education for specific high-risk groups. The former will imply strengthening local capacity (i.e. local and municipal committees, civil society, public health services, and private sector)

and coordinating local efforts to manage HIV/AIDS. The latter will focus on peer-education in groups, contexts, and places that are not community specific and/or in which community involvement may not be a feasible or desirable option given the issues of stigma and discrimination. Behavioral surveys will be carried out periodically to identify high-risk behavior and tailor interventions and as the basis for indicators to assess the effectiveness of interventions.

## **2. Expansion of environmental sanitation services (US\$6.695 million)**

- 2.19 This component will support the expansion of services for water supply, wastewater treatment and solid waste management to ensure that all islands have improved coverage for public health and environmental quality purposes, consistent with the archipelago's sustainable development. Sanitation services will be extended to small town residents in Utila, Guanaja and newly settled or isolated communities on the island of Roatán that were not part of the first stage of PMAIB. The emphasis will be on ensuring the sustainable provision of services through the timely selection and implementation of institutional arrangements and tariffs. This will benefit an estimated 20,000 residents living in primarily poor urbanizing neighborhoods or isolated fishing communities. An updated list of priorities that takes into account proposed investments by other financing institutions, including USAID, was compiled and agreed upon with each municipality during project preparation.
- 2.20 In the municipality of **José Santos Guardiola**, the program will finance the following improvements in basic sanitation: (i) water supply services in Pollitilly Bight and Punta Gorda. This will include the construction of new wells in line with the norms established in the island-wide water resource plan, the acquisition and installation of meters, and improvements in storage and distribution networks; (ii) wastewater collection and treatment services to Pollitilly Bight and Punta Gorda, including the construction of new networks and/or individual systems depending on the engineering designs to be prepared in the first year; and (iii) the construction of a sanitary landfill at a site already identified and closure of the existing dump in Oak Ridge. By the end of the Program (2007), the combined set of improvements is expected to benefit an estimated 9,400 residents as well as accelerate the recovery of a highly deteriorated coastal lagoon and several fringing reefs.
- 2.21 The program will finance the following improvements in basic sanitation in the municipality of **Roatán**: (i) water supply services to the communities of Los Fuertes, Flowers Bay and West End. As in José Santos Guardiola, the works will include the construction of new wells in line with the norms established in the island-wide water resource plan, the acquisition and installation of meters, and improvements in storage and distribution networks; and (ii) wastewater collection services for Los Fuertes, Flowers Bay and West End. These improvements are expected to benefit an estimated 5,400 residents as well as help reduce contamination of fringing reefs along the northern shore of Roatán.
- 2.22 In the municipality of **Guanaja**, the program will finance: (i) the construction of new wells and distribution networks in Savannah Bight and East End; (ii) wastewater collection and a treatment facility in El Cayo (the island's main community) as well as smaller systems in Savannah Bight and East End; and (iii) solid waste collection

equipment and the construction of a small landfill to service Savannah Bight and East End. These improvements are expected to benefit an estimated 2, 900 residents as well as accelerate the recovery of three locations with highly degraded water quality.

- 2.23 In the municipality of *Utila*, the program will finance: (i) wastewater collection networks and treatment facilities for both Utila Town and Los Cayitos (the island's two main communities); and (ii) additional solid waste collection equipment (the landfill was recently relocated and an incinerator is being financed by USAID). These improvements are expected to benefit an estimated 1,900 residents as well as accelerate the recovery of two locations with highly degraded water quality.
- 2.24 Definitive designs are available for the communities of Los Fuertes, Flowers Bay and West End. This component will also include a study of incentives and the design of pilot recycling initiatives with the participation of the private sector.
- 2.25 The municipalities of Roatán and José Santos Guardiola have selected the Municipal Public Services Council as the model to manage their potable water and wastewater treatment infrastructure. In both cases, these entities will be responsible for operating and maintaining the systems established during the first stage of the PMAIB as well as those to be built during the second stage. The project includes resources to help the municipalities in setting up the operational structures required, as well as resources to review and set tariffs for potable water, sewerage collection and solid waste collection and disposal at levels that cover at least operating and maintenance costs (para. 3.18). Coverage of fraction of depreciation will be included to make it compatible with the estimated financial capacity of users. Coverage of sewerage treatment will be subsidized with resources coming from the conservation tariff to be established (see paragraph 2.10). Calls for bids for investments included in this component will start in each municipality once the respective Municipal Public Service Councils have been formally set up, a step that will allow these organizations to actively participate during the contracting and supervision of the construction. At the end of the construction process, the infrastructure will be transferred to the municipalities and from them to the organization in charge of managing the systems in each municipality, following the rules for this type of process agreed in each municipality prior to the start of the works.
- 2.26 The municipalities of Utila and Guanaja will receive technical assistance in the first year to support their timely selection of an operational model for public services prior to initiation of construction. This will ensure that sufficient time is provided to consult residents and build support for an institutional arrangement and tariff structure best suited for each municipality and its constituency. In the same manner as with Roatán and José Santos Guardiola, it is expected that the operational organizations that will manage the systems will play a role in the contracting and the supervision of the construction, which will allow a rapid transfer of the works to the municipalities and from them to the operational organizations that will manage the systems.

### **3. Municipal strengthening and land management (US\$2.52 million)**

- 2.27 This component aims to strengthen the capacity of the four municipalities as principal agents orienting and reaching decisions pertaining to the sustainable development of the

archipelago, particularly where these pertain to land management. The activities have been regrouped into two sub-components for execution and monitoring purposes:

**a) Municipal capacity building (US\$1.726 million)**

- 2.28 This sub-component will finance the implementation and monitoring of Municipal Action Plans (*Planes de Acción Municipal – PAMs*) in all four municipalities of the Department. These Plans have been formulated on the basis of a common strategy for municipal development and prepared with the support of a technical cooperation (ATN/KB-7787) using a participatory methodology involving the municipal corporations and their various constituencies. A phased, gradual approach to implementing the PAMs has been proposed, with a first phase focused on consolidating basic administration functions, including continued strengthening of the cadastre offices; and the second phase focused on more complex functions. The sequence of the technical assistance activities has been designed to place an early emphasis on regulations, tools and consensus building that complement the activities and investments in components 1 and 2. The duration of each phase will be flexible in recognition of the distinct needs of each municipality.
- 2.29 The subcomponent will finance training, technical assistance, acquisition and installation of equipment, and the production of supporting manuals in the following basic categories common to all four PAMs: (i) modernization of municipal administration and finances (including fees and penalty schedules); (ii) improvements in the provision of municipal public services, including, where appropriate, with increased involvement of the private sector; (iii) introduction of good practice in municipal development planning and environmental management; and (iv) governance. This will include on-site training of the Municipal Environmental Units in functions such as development review, monitoring and enforcement, the formulation of improved norms for land use planning (including zoning and building codes) and urban development policies, modernization and integration of municipal information systems; and public participation and inter-institutional coordination for environmental management.

**b) Modernization of the departmental land property registry system (US\$0.794 million)**

- 2.30 This sub-component will finance the establishment of a fully modernized departmental property registry linked to the four municipal cadastres. As such, it will contribute to enhanced land security for island residents while also improving the efficiency and sustainability of land administration services.
- 2.31 The program will finance the following activities as part of the modernization process: (i) an in-depth diagnostic of the Departmental Land Property Registry, the status of its property records, and an accompanying process review of real estate transactions. The latter would include an evaluation of services currently provided to be undertaken in consultation with key stakeholders; (ii) the final design of the modernized Land Property Registry System, including updated operational procedures for records tracking and management; (iii) design and implementation of an improved fee structure for land-related services and products sought by developers, real estate companies, lawyers and public notaries, banks and other potential users; (iv) the digital conversion of an estimated 30,000 registration and transaction documents currently within the

Departmental Land Property Registry; (v) reconciliation of the cadastral system with the Registry in the four municipalities. This activity, which will entail the deployment of field surveying teams, will ensure that there is a complete correspondence between the Registry and cadastral records. The teams will work with each municipal cadastral office in the identification of inconsistencies and resolution of conflicts (e.g., boundary delimitations). Simultaneous grassroots campaigns in low-income neighborhoods and traditional Garifuna communities where parcels will reinforce access to services for difficult to reach groups, including an estimated 5,800 residents with undocumented property rights; and (vi) installation and testing of the various technology modules needed to support the system, including a telecommunications network that would link the Property Registry with all four municipal cadastral offices. Performance indicators will measure conversion rates, improvements in access and the introduction of new applications for land management.

- 2.32 The costs of this sub-component include: (i) consulting services for the diagnostic, designs, installation and testing of the system, and the digital conversion of records; (ii) acquisition and installation of equipment for the networks; (iii) training and technical assistance; and (iv) events and information materials for the grassroots outreach campaigns.

**c) Costs and financing**

- 2.33 The total cost of the proposed program is US\$16.3 million, of which the Bank will finance US\$12 million (73,62% of the overall Program) with resources from the Fund for Special Operations. The local counterpart contribution will be equivalent to US\$1.8 million (11.04% of the overall Program), for which the Government has confirmed availability of funds. Discussions are also currently underway with ICDF for financing part of the local counterpart contribution. Financing from the Global Environment Facility (GEF) on grant terms in the order of US\$2.5 million is under consideration. Notification of approval of the GEF financing is a prerequisite to commitment or disbursement of resources for activities to be financed by the GEF. Table II-1 shows expenditure items by investment category and sources of financing.



**Table II-1. CONSOLIDATED BUDGET BY COMPONENT (in US\$ Thousands)**

Categories	IDB	GEF	LOCAL	TOTAL	%
<b>1.0 PROJECT ADMINISTRATION</b>	<b>614</b>		<b>1,061</b>	<b>1,675</b>	<b>10.3%</b>
1.1 Program Coordination Unit (PCU)	514		1,061	1,575	
1.2 External audits	100			100	
<b>2.0 DIRECT COSTS</b>	<b>9,824</b>	<b>2,500</b>	<b>610</b>	<b>12,934</b>	<b>79.3%</b>
<b>2.1 Consolidation of departmental scheme</b>	<b>969</b>	<b>2,500</b>	<b>250</b>	<b>3,719</b>	<b>22.8%</b>
2.1.1 Strengthening of Commission	200	664	127	991	
2.1.2 Investments in protected areas	200	1,836		2,036	
2.1.3 Social communication strategy	569		123	692	
<b>2.2 Expansion of sanitation services</b>	<b>6,345</b>		<b>350</b>	<b>6,695</b>	<b>41.1%</b>
2.2.1 Studies	90			90	
2.2.2 Construction of works	4,955		300	5,255	
2.2.3 Sanitation equipment	700			700	
2.2.4 Supervision of works	600		50	650	
<b>2.3 Municipal strengthening and land management</b>	<b>2,510</b>		<b>10</b>	<b>2,520</b>	<b>15.4%</b>
2.3.1 Municipal capacity building	1,716		10	1,726	
2.3.2 Modernization of the registry	794			794	
<b>3.0 UNALLOCATED</b>	<b>1,113</b>		<b>59</b>	<b>1,172</b>	<b>7.2%</b>
<b>4.0 FINANCIAL COSTS</b>	<b>449</b>		<b>70</b>	<b>519</b>	<b>3.2%</b>
4.1 Interest	329			329	
4.1 Credit commission			70	70	
4.3 Inspection and administration	120			120	1%
<b>TOTAL</b>	<b>12,000</b>	<b>2,500</b>	<b>1,800</b>	<b>16,300</b>	<b>100%</b>
<b>Percentage</b>	<b>73.62%</b>	<b>15.34%</b>	<b>11.04%</b>	<b>100%</b>	

### **III. PROGRAM EXECUTION**

#### **A. The borrower and executing agency**

- 3.1 The Borrower will be the Republic of Honduras and the executing agency will be the Tourism Secretariat through the Honduran Tourism Institute. The proposed execution period will be five years. The period of execution takes into consideration the managerial and administrative capacities acquired during the first stage, the existence of a decentralized office, and the readiness of the designs and specifications reviewed during the analysis mission. The time needed to solidify the coordination among municipalities, provide opportunities for the Regional Council to gain experience in its regional functions, and monitor and detect measurable change in key environmental indicators such as water quality was also taken into consideration.

#### **B. Program execution and administration**

- 3.2 The Tourism Secretariat will be responsible for overall coordination and execution of the Program. The Minister and the Vice-Minister will have ultimate responsibility for the Program. The Secretariat will hire a Program Director to head the Program Coordination Unit (PCU) to be restructured for the purposes of executing the second stage. The updated structure and responsibilities of the PCU are described further below. The restructuring and redefinition of the functions of the PCU and the selection of the Program Director will be a condition prior to first disbursement.

##### **1. Program Coordination Unit (PCU)**

- 3.3 Building on the experience gained during the first stage, a restructured PCU will be established within SECTUR and will report to the Minister and Vice-Minister of Tourism for operational purposes. The PCU will have its principal base of operations in the Bay Islands (Roatán) for the purposes of managing and coordinating execution of the Program's three components in close concert with the four participating municipalities and other members of the Executive Commission for Sustainable Tourism of the Bay Islands. The PCU will incorporate the resources (equipment, systems, data bases) acquired during the first stage of the PMAIB, thereby ensuring a timely start-up.
- 3.4 The PCU will maintain several of its functions attributed during the first stage, such as ensuring the activities in the three components are implemented in an integrated and timely manner. The PCU will be responsible for execution through contracting of specialized firms, consultants and in accordance with inter-institutional agreements described further below by component. The PCU will acquire additional functions such as: (i) promoting the transfer of skills and capacities to local entities (municipalities, the Commission and its Technical Unit, associations, NGOs) during execution; this will include serving as the Secretariat for the Commission and ensuring timely dissemination of Program information to all Commission members; (ii) providing analytical support in the formulation of policies, regulations and norms, including providing information to the municipalities, private sector and civil society organizations and other entities on regional environmental quality trends; and (iii) promoting effective participation of stakeholders in monitoring and evaluating the Program.

3.5 Specific responsibilities of the PCU also include the following:

- a. Coordinate the procurement of all goods and services for the Program in accordance with policies and procedures of the Bank;
- b. Prepare, collect and present all reports as required under the conditions of the loan contract and the Program Operating Regulations and for effective dissemination of information relating to the conduct of the program, including periodic briefings of the Commission and updates on the PMAIB web site.
- c. Oversee, monitor and report on the performance of consulting firms and individual consultants contracted for the execution of activities in order to achieve the expected results and overall quality of the Program.
- d. Provide a capacity building environment for personnel who will eventually form part of the Technical Unit of the Commission. This includes monitoring compliance with all mitigation measures stipulated in the specifications and Program Operating Regulations and working in cooperation with the Municipal Environmental Units and the participatory oversight mechanism to ensure that corrective measures are taken when violations are reported.
- e. Support the interchange of information and lessons learned among the various participants of the Program.

3.6 The PCU will include a Director who will have responsibility for the day-to-day supervision of execution and coordination between the firms, consultants and other entities contracted to carry out the Program's activities.

3.7 The other personnel of the PCU will consist of: (i) a municipal development specialist; (ii) a sanitation engineer; (iii) a financial and administrative coordinator; and (iv) support personnel to be financed by the local counterpart contribution.

3.8 Execution will be guided by Program Operating Regulations that include, among other items, the selection criteria for Program activities, terms of reference for the Project Director and other PCU positions, procedural rules and operating regulations for the participation of the Commission in the Program (including specific responsibilities of its members), the requirements for the annual work plans, guidelines for community consultation and participation, conflict resolution and management, guidelines for coordination with local government and environmental review procedures required for program investments. Draft Program Operating Regulations were developed during preparation and discussed between SECTUR and the Bank, with specific aspects consulted with municipalities. Entry into effect of the definitive Program Operating Regulations previously agreed upon between SECTUR and the Bank will be a condition prior to first disbursement.

## **2. The Commission and Technical Unit**

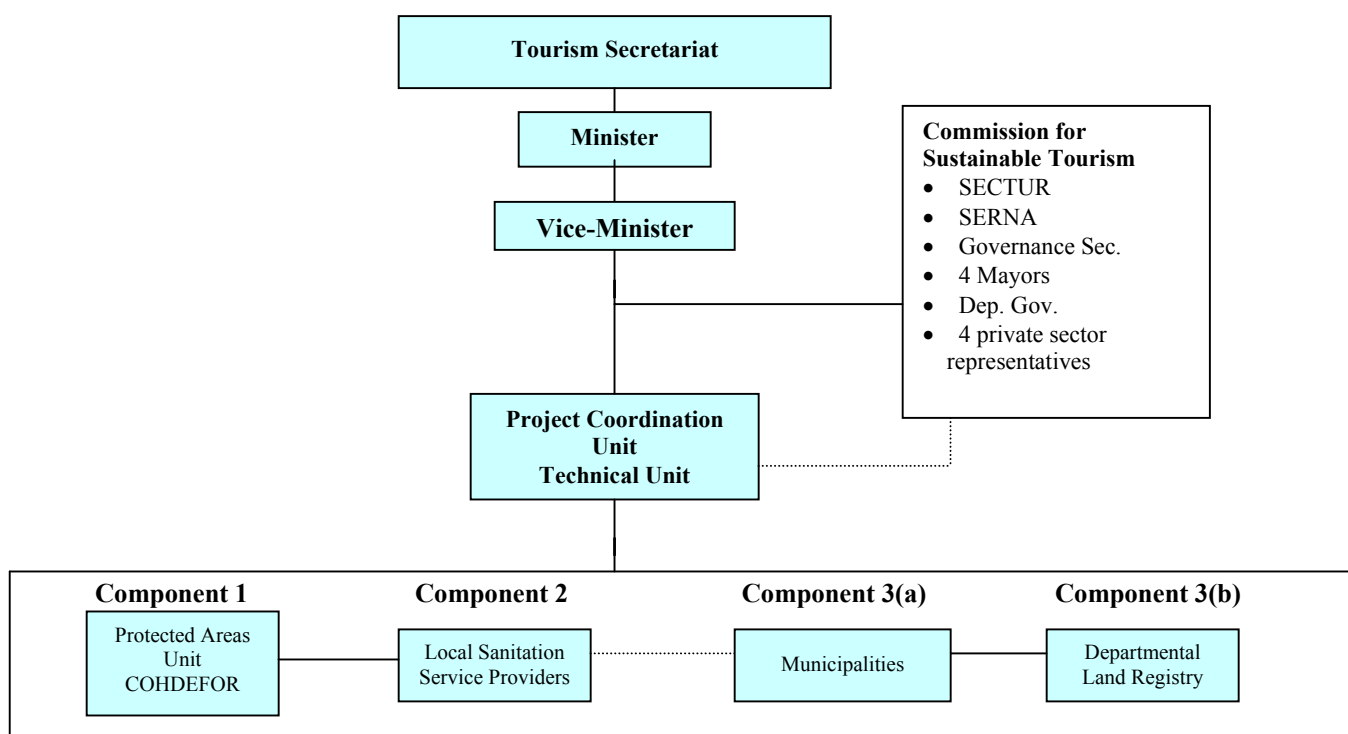
3.9 The Executive Commission for Sustainable Tourism of the Bay Islands will play a supporting role in promoting inter-institutional coordination, policy dialogue and consensus on sustainable tourism, environmental and growth management issues and priorities. The responsibilities and administrative procedures of the Commission,

pursuant to Executive Order No. 005/2002, are included in the draft Operating Regulations.

3.10 During the first 3 years of execution, personnel from the Technical Unit of the Commission will form part of the PCU as a means of building capacity and ensuring continuity. By the third year of execution, the Technical Unit will assume the full range of responsibilities for monitoring the permanent program and supporting the Commission with no further funding from the program.

3.11 The organization structure of the Program is illustrated below.

**FIGURE 1. ORGANIZATIONAL STRUCTURE**



### 3. Execution of program components

3.12 **Strengthening of the Commission:** A specialized management firm and individual consultants in environmental law, financial planning, regional planning and growth management, and other specialized areas will be contracted by the PCU to develop the business plan and provide technical assistance to the Commission. In addition, the PCU will be responsible for contracting the personnel of the Technical Unit for a period of three years (Coordinator, a Protected Area Manager, a water quality technician, a specialist in social promotion, and support personnel).

3.13 **Investments in the regional system of marine and coastal protected areas:** For the execution of this sub-component, SECTUR, SERNA and COHDEFOR will enter into a framework agreement that will stipulate the coordination mechanism and specific responsibilities for implementing the investments and the operation, maintenance and strengthening of the system of protected areas. A draft of the agreement was reviewed by

the Bank during the analysis mission. The final version of the framework agreement must be signed by SECTUR, SERNA and COHDEFOR prior to the commitment or disbursement of resources under this subcomponent. The natural resource management activities will be carried out in the following manner: the PCU will enter into cooperative agreements with local NGOs on each island and/or on the mainland actively involved with marine protected area management, the design and establishment of ecotourism facilities; rural development, watershed conservation and related activities. The NGOs will be selected on the basis of criteria established in the Program Operating Regulations and in accordance with Bank procedures for the local contracting of services and goods.

- 3.14 ***Social and participation communication strategy:*** The PCU will be responsible for execution of the local outreach activities. To this end, the PCU will contract a firm with in-depth knowledge of the socio-cultural context of Honduras, preferably in coastal communities, to fully design the outreach campaigns and carry out the activities with the active involvement of grassroots networks in all three islands. The PCU will contract individual consultants to provide the technical assistance needed to establish and monitor the performance of the local oversight mechanism. To implement the activities aimed at promoting private sector support, the PCU will contract a specialized international consulting firm with extensive experience in the design and implementation of environmentally sustainable tourism programs and environmental management systems for hospitality businesses. Firms that receive the detailed environmental audits will need to meet selection criteria. These will include ability and commitment of firm management to implement improvements, interest in demonstrating results and benefits, willingness to copay for the cost of the audit, and financial solvency of the firm.
- 3.15 The activities aimed at mainstreaming HIV/AIDS prevention and control will be executed by a firm or specialized agency contracted by the PCU, with demonstrated experience in HIV/AIDS behavioral surveillance, design of health data transmission and management systems, training of health personnel in HIV/AIDS related management, and local capacity building for prevention and support. The PCU will hire a short-term consultant to help prepare the contract specifications.
- 3.16 ***Expansion of environmental sanitation services:*** The PCU will be responsible for the administration of this component, including preparation of reports, disbursements and monitoring of contractual conditions of the Program, and, in general, will take all necessary administrative actions for effective execution of the works and technical assistance, in accordance with the guidelines established in the loan contract. In accordance with the Program Operating Regulations, the PCU will work closely with each municipality participating in this component to ensure that institutional and financial mechanisms for operation and maintenance of services are in place and that local residents are fully informed prior to initiation of works. Prior to the first call for bids or other form of initiating procurement in each municipality, the Government of Honduras will present evidence that the respective entity or contractual arrangement, according to a management model for the provisions of services, and maintenance of infrastructure acceptable to the Bank, has been established.
- 3.17 For the purposes of execution, the PCU will be responsible for contracting construction firms, in the case of works required as part of the Program, through public bidding,

international or national, following the policies and procedures of the Bank for this type of bidding. In addition, the PCU will contract qualified engineering firms for the preparation of the engineering designs and studies that are pending prior to the call for bids for the construction of works to be financed by the Program, as well as the supervision of these works, always in accordance with the policies and procedures of the Bank in this respect. In addition to stipulating the environmental review requirements in accordance with SINEIA, the Program Operating Regulations establish a sequence whereby prior to calling for bids, designs will be consulted with participating municipalities and neighborhoods to be serviced to ensure local support and understanding of the improvements, their benefits and impact on the community during construction and operation. The PCU will also contract individual consultants for the technical assistance in support of implementing cost-effective models for the provision and maintenance of basic sanitation services.

- 3.18 ***Coordination with municipalities:*** SECTUR will enter into a framework agreement with each municipality for the purpose of coordination and effective participation. The framework agreements will establish, at a minimum, the following responsibilities for the municipalities: (i) participation in the project as member of the Commission as established in the Program Operating Regulations; (ii) review, approval and monitoring of compliance with permits, pursuant to applicable regulations, for those investments (Component 2) included in the Annual Operating Plans for basic services; (iii) provide the public parcels and legal documentation of property required for the construction of basic services (Component 2); (iv) ensure the consolidation of the administrative structures established for operation and maintenance of basic water and sanitation services (Component 2), including the adoption of required tariff structures following current IDB policies for public utilities as indicated in paragraph 2.25; (v) execute the activities of Component 3 in conformity with the agreement and the Program's Operating Regulations; (vi) participate in the process of selection of the advisory firm for Component 3; (vii) present the investment project proposals following the guidelines established in the Program's Operating Regulations and actively participate in all phases of each project; and (viii) present the required progress and evaluation reports as well as all other information that may be necessary for SECTUR and the Bank to carry out monitoring. Submission to the Bank of the signed framework agreement with each municipality will be a condition prior to commitment and disbursement of resources under Components 2 and 3 in the respective municipality.
- 3.19 **Modernization of the Land Property Registry:** Execution of this component will be guided by an inter-institutional agreement between SECTUR and the Supreme Court regarding cooperation for the purposes of modernizing the land administration system of the Department of the Bay Islands. Submission of the signed agreement to the Bank will be a condition prior to commitment or disbursement of the resources of this sub-component.
- 3.20 For the execution of this sub-component, the PCU will administer and oversee two contracts with international firms with demonstrated experience in the conversion of land registries in developing countries. The first firm will be contracted to undertake the diagnostic, the business review process of the existing departmental registry, the final design of the system, the digital conversion of records, and reconciliation of property

boundaries. The PCU will contract an individual consultant to help prepare the definitive specifications for these services. The second contract will entail the acquisition of equipment and installation of networks required for the modernized system.

#### **4. Financial statements and audits**

- 3.21 During program execution, the PCU will prepare and submit to the Bank annual financial statements of the Program. These financial statements will be submitted within one hundred and twenty (120) days after the closing date of each fiscal year. An audit firm acceptable to the Bank will be responsible for the audit of the financial statements submitted to the Bank. The audit costs will be included in the project cost, to be financed by the Bank's loan. While delays in submission of audited statement occurred at the outset, audited statements have been received for the PMAIB on a timely basis throughout fiscal years 2000-2001. These past statements confirmed efficient use of resources in accordance with the loan contract and applicable Bank procedures.

#### **C. Procurement of goods and services**

- 3.22 Acquisition of goods and services and contracting for civil works financed with program resources will be subject to Bank procurement procedures and policies. The PCU will use international public bidding for consulting services that exceed US\$200,000, the acquisition of goods that exceed US\$350,000 and US\$1 million for civil works. These limits are justified considering that in similar projects in the country and in Central America, international participation is attracted when amounts exceed these limits. All bidding under the set limits will be done following national legislation. Procurement of individual consulting services will also be done according to Bank procedures and policies. The program's procurement plan and schedule is presented in Annex II.

#### **D. Execution and disbursement schedule**

- 3.23 The disbursement schedule for the program, by source of funds, is presented in Table III-1 below:

**Table III-1. DISBURSEMENT SCHEDULE (in US\$ Thousands)**

Source	Year 1	Year 2	Year 3	Year 4	Year 5	Total
IDB	1,800	3,800	4,000	1,700	700	12,000
GEF	530	485	1,000	210	275	2,500
Local	235	615	495	340	115	1,800
<b>Total</b>	<b>2,565</b>	<b>4,900</b>	<b>5,495</b>	<b>2,250</b>	<b>1,090</b>	<b>16,300</b>
<b>Percentage</b>	<b>17</b>	<b>30</b>	<b>33</b>	<b>14</b>	<b>7</b>	

#### **E. Special disbursement to initiate program activities**

- 3.24 The Bank may disburse up to the equivalent of US\$400,000 of the resources of the loan upon compliance with the General Conditions precedent to first disbursement, in order to support activities relating to compliance with the special conditions precedent, including contracting of PCU personnel, preparation of studies under component 2 and technical assistance to the Municipal Public Services Councils.

**F. Monitoring and evaluation**

- 3.25 The program will be carried out in accordance with annual work plans setting out targets (in relation to the benchmarks), activities, schedule and budget for the relevant year. Within two months of the end of each calendar year of program execution, the PCU will send the Bank a report on the extent to which the targets set out in the work plan for that year have been achieved, problems and delays encountered, and a proposed work plan for the ensuing year. Within one month of receipt of these documents, the Bank, SECTUR and the Commission will meet to review performance of the previous year and to approve the work plan of the current year.
- 3.26 **Mid-term evaluation.** The project team, together with SECTUR and the Commission, will conduct a mid-term evaluation of the Program's execution, as part of its normal monitoring activities, no later than two years after the first disbursement. The Bank Country Office in Honduras, following Bank procedures, will request the mid-term administrative mission. The key objectives of the mid-term evaluation will be to: (i) assess the degree of advance towards the Program's objectives and expected results; (ii) assess the degree of effective participation in the Program and coordination among local stakeholders, including municipalities; (iii) review the data being collected on performance key indicators of results; and (iv) review and reach agreement on any modifications required to expedite execution.
- 3.27 **Final evaluation.** As part of the monitoring activities included in Component 1, the Program includes the collection of data on water quality, reef health, other environmental indicators, artisanal fisheries, diving and other resource use as well as visitor statistics. This information will be used to conduct a final evaluation in the last semester of execution, using as a reference point the 1999-2000 baseline acquired during the first stage. The information would also be available for an ex-post evaluation should the decision be made to conduct one.



## **IV. VIABILITY AND RISKS**

### **A. Technical and institutional viability**

- 4.1 The program's investments and on-site activities in environmental management, water quality monitoring, artisanal fisheries management, erosion control, ecotourism promotion, public awareness and land administration have been designed through a systematic local consultation process with user groups on the three islands. All activities build on the lessons learned with pilot efforts financed during the first stage as well as the diagnostics completed in 2000. Existing capacity and incentives for participation were key factors in the selection of activities.
- 4.2 The institutional viability of the program rests on the following key features of its design:
- a. SECTUR has demonstrated its commitment and capacity as executing agency of this multi-sector program, while also taking tangible steps towards promoting greater local representation and increased capacity at the municipal level as necessary conditions for the long-term sustainability of the Program.
  - b. The circumstances for a decentralized institutional arrangement have improved considerably since the inception of the PMAIB in 1994. The program has benefited from the institutional development, strengthening and coordination efforts taken by SECTUR and its PCU. This experience has brought to light the importance of building capacity in local institutions, particularly all four municipalities as an essential element towards building a partnership that encompasses the entire archipelago. Municipalities themselves have been strengthened in key functions through the Program such as land administration, thereby acquiring a better insight on the Program's integrated objectives. This experience was brought to bear during preparation of the operation through consultations with SECTUR, its PCU, the municipalities, the Governance Secretariat, SERNA, the private sector and local NGOs. As a result, each component of the operation places emphasis on the gradual transfer of capacity and the strengthening of those local entities crucial to the permanence of the Program.

### **B. Socioeconomic viability**

- 4.3 Components 1 and 2 of the project were subject to cost-benefit analysis. Although no specific cost-benefit analysis was done for component 3, given its emphasis on institutional strengthening, the Analysis mission confirmed the usefulness and cost-efficiency of these activities.

#### **1. Environmental protection and management**

- 4.4 The economic analysis of investments in component 1 was done using an aggregate approach relying on simulations using the Social Accounting Matrix built during the preparation of the project. The main aim of investments in this component, as well as of investments in sewerage treatment plants contemplated for a few towns in Utila and Guanaja, is to preserve the valuable natural base of the Islands, and particularly the coral

reefs. These resources support most of the economic activities of the islands by supporting the tourism, fisheries and great part of the real state businesses. In the absence of a precise relation between degree of preservation of the natural base and these three activities (influx of tourists, fish production, demand for real state), a relation very difficult to establish in a quantitative manner, a simulation approach was used.

- 4.5 A conservative reduction of 10% in the influx of tourists, spread among the three tourist groups in the same proportion of their share of tourists' expenditures, was simulated using the SAM and the difference in Gross Island Product was estimated. It is believed that continued degradation of the natural resource base would have a much larger impact in the tourism industry, and would impact as well the production of coral reef related fish and the demand for real state. The last two effects were not included in the simulation making it an even more conservative estimate.
- 4.6 Results of the simulation show that for a reduction of US\$5.45 million in tourism receipts in Roatán alone (10% of total), Roatán's GIP would fall by an estimated US\$3.26 million, Roatán's tax receipts would fall by US\$120,972 and income to the rest of Honduras would decrease by US\$1.2 million annually.<sup>8</sup>
- 4.7 Investments of component 1, valued at market prices, are in the order of US\$ 3.0 million. Investments in sewerage treatment plants for towns in Guanaja and Utila and for the José Santos Guardiola landfill are in the order of US\$1.8 million, and annual operation and maintenance costs of the protection system to be implemented, including existing and new sewerage treatment plants, are in the order of US\$0.5 million dollars. It is clear then that the proposed activities to protect the natural resource base of the Bay Islands are a very attractive investment.

## **2. Expansion of sanitation services**

- 4.8 Component 2 includes investments in potable water and sewerage systems as well as solid waste disposal. Each one of these was treated differently in the analysis. Investments for the José Santos Guardiola sanitary landfill could be considered as part of investments to protect the natural resource base and were included as such in the analysis of the first component.
- 4.9 The cost benefit analysis of potable water systems was done using benefit transfer techniques based on synthetic water demand function obtained from a recently completed technical cooperation financed by Regional Department II of the Bank (TC-00-01-01-9).<sup>9</sup> Benefits were estimated as the areas under the synthetic demand function for each town, between assumed inelastic supply without the project and the minimum of the inelastic supply with the project (total production capacity with the project) and the estimated demand at the assumed water tariff that would be charged with the project. The net

---

<sup>8</sup> Increments in GIP translate into producer surplus as long as opportunity costs of factors are zero. In the case of the Bay Islands there is a low opportunity cost of increments to the labor force so GIP increments translate into welfare gains to a great extent.

<sup>9</sup> Distributive effects of Water Pricing in Central America. Water demand estimation component finished in April 2002.

present value of these benefits over a 25-year planning horizon was compared with the net present value of the investments and the incremental operation-maintenance cost with the project. Sensitivity analysis was done to increases in project costs. Results provided below show also the investment per household that is implied by the analysis, a value that should be used as a reference cost limit for final project designs.

- 4.10 The cost benefit analysis of sewerage systems (improved single family solutions and network systems) was done using average willingness to pay (WTP) estimated based on a summary regression model developed to summarized previous experiences of the Bank in these type of projects.<sup>10</sup> Benefits were estimated as the product of the estimated WTP and the number of households covered by the project. The net present value of these benefits was compared with the net present value of investments and incremental operational costs. Willingness to pay for improved septic tanks was assumed as 75% of the WTP for network systems. The results of the analysis presented below include the investment per household that is implied by the analysis. This value should be understood in the case of projects with IRR below 12, as a maximum investment per household that would produce a 12% Internal rate of return and should be provided as a cost limit for final design studies.

**Table IV-1. SUMMARY OF COST BENEFIT ANALYSIS. COMPONENT 2**

<b>Project</b>	<b>Investment (US\$)</b>	<b>IRR (%)</b>	<b>NPV at 12%</b>	<b>Inv./Households</b>
PW Los Fuertes	228,282	22	383,873	507
PW Flowers-West End	550,000	28	1,336,167	973
PW Savanna-East End	110,000	18	73,063	345
PW Politilly-Punta Gorda	240,000	17	185,287	1,021
S. Los Fuertes	381,075	17	114,406	730
S. Flowers Bay-East End	383,780	15	68,359	1,099
Punta Gorda-Politilly Bight	210,000	34	231,067	407
Savanna Bight-East End	390,000	10	-41,806	1,023
Utila Town-Los Cayitos	1,000,000	22	332,070	721
El Cayo-Guanaja	1,000,000	21	247,232	770

### **C. Financial viability**

- 4.11 The financial viability of the program was evaluated from three perspectives: (i) at the regional scale, the impact of the Bay Islands Conservation and Protected Area fee as a mechanism for financing regional environmental management on a sustainable basis; (ii) at the municipal level, increased efficiency in the collection of property taxes, arrears and other revenues as mechanisms to sustain the institutional gains financed by the program, including the strengthened activities in local environmental management and land use planning; and (iii) complementary increases in departmental level revenues

<sup>10</sup> A Review of the use of Contingent Valuation Methods in Project Analysis at the Inter-American Development Bank. William j. Vaughan, Ricardo Quiroga, Sergio Ardila. 1998. Section on Sewerage systems.

from user fees for registration and transaction of property and the sale of information products..

- 4.12 An analysis of cumulative distribution of willingness to pay for environmental management and protection was undertaken as part of the visitor surveys conducted for the socioeconomic study. The results show that just over 80 percent of all respondents indicated that they were willing to contribute at least US\$5, 77 percent were willing to contribute US\$10, 60 percent, US\$15, and 55 percent, US\$20. Day visitors were also willing to pay a smaller fee (US\$2). These preliminary findings provide an indication of how large of a fee could be levied without objection by Bay Island visitors, provided that the revenues generated by the tax are used to preserve or enhance the island ecosystems. For example, more than 75 percent of visitors would not object to a US\$10 visitor tax for the explicit purpose of protecting and enhancing the island ecosystems and this was the indicative fee used to project revenues for environmental management.
- 4.13 Assuming current annual numbers of multi-day visitors (50,000) paying a US\$10 fee and day visitors (60,000) paying at US\$2 fee with conservative assumptions for collection rates and administrative costs, the Bay Islands Conservation and Protected Areas fee could generate annual revenues in the order of US\$500,000. Based on available cost projections, these revenues would cover fully annual operation and maintenance of the system of protected areas (estimated at US\$250,000), the Technical Unit (estimated at US\$120,000) and the subsidy required to cover most operating expenses of the wastewater treatment plant of Roatán (estimated at US\$70,000). The new sewage treatment plants for Guanaja and Utila would be candidates to receive similar subsidies, but it is anticipated that the amounts required would be smaller than the projected subsidy for Roatán. As such, the departmental level environmental management activities have long-term financial sustainability, confirming that the Program can attain self-sufficiency and in turn alleviate the government's fiscal burden.
- 4.14 Projections of increased revenues were made for each municipalities based on expected improvements on the collection of arrears, property and other taxes and increases of the total number of taxpayers. Similar results at the municipal level confirm that the Program will have a positive fiscal impact in the medium and long terms, as it generates sufficient increased revenues to cover recurrent operating expenses from investments financed by the Program at the municipal level.

## **D. Environmental and social considerations**

### **1. Environmental and social impact**

- 4.15 Overall, the Program will have a positive environmental impact associated with measurable results in terms of: (i) increased local capacity for environmental management; (ii) consistent reporting on environmental trends and land use change; (iii) on-site protection and restoration of globally significant coastal and marine ecosystems, including habitat for several endemic species; (iv) reductions in discharges of untreated wastewater and sedimentation rates; and (v) improved sustainable allocation of groundwater resources. Specific indicators have been selected relating to water quality, coral reef health, forest and mangrove cover and rates of land use change for

which data will be collected as part of the field monitoring to be financed by the Program (see Annex I). The comprehensive environmental information system established in 2000 provides the baseline against which performance will be periodically reviewed, with reporting to be part of the annual 'Sustainable Tourism Report Card'.

- 4.16 Social benefits will accrue from improved access to safe drinking water and wastewater treatment, particularly in the most isolated and poorest communities. Residents will also benefit from improved municipal services and access to more efficient and reliable property registration. Modernization of the departmental property registry will allow land owners to register their titles more efficiently and, in time, will improve access to credit for local investment. Other social benefits such as reduced resource use conflicts are expected from the shift towards a more inclusive institutional arrangement for environmental management. Improving the health data transmission and management system will allow health service providers to improve their response to various local health issues. Furthermore, social benefits are expected from increased HIV/AIDS education and awareness, and from local capacity building in HIV/AIDS prevention and control activities.
- 4.17 The Program will not result in significant or foreseeable adverse environmental or social impact due to the nature, scale and location of construction and post-construction activities. Preventive and mitigation measures, both substantive and process-oriented, have been incorporated to the specifications for investments. Key features of the Environmental and Social Management Proposal (ESMP) are summarized below:

## **2. Preventive measures and indicators**

- 4.18 While significant adverse effects from the program's activities are not likely, there are potential indirect environmental effects for which preventive and/or mitigation measures have been incorporated to the design. The principal measures of the ESMP are as follows.
- 4.19 **Procedures incorporated to the Program Operating Regulations and Annual Planning Cycle.** The Program Operating Regulations include the procedures for environmental impact analysis and supervision of works to be financed by the Program in accordance with the requirements of Honduras' national system for Environmental Impact Assessment (SINEIA). This encompasses all requirements for municipal permits and licenses to be obtained prior to the initiation of construction in accordance with Honduran law in this matter. In the case of multi-year works (such as the construction of the sanitary landfill for José Santos Guardiola), draft terms of reference for the preparation of the environmental impact assessment required by law have been prepared by the PCU and reviewed by the Bank. Final design specifications will include all standard mitigation measures for such works in coastal and island areas.
- 4.20 **Participatory monitoring.** A participatory oversight mechanism involving community and private sector associations (e.g., dive operators) will be established to further promote voluntary compliance with environmental regulations. A simple reporting mechanism will be put in place to enable the neighborhood committees to report on unforeseen problems with construction and operation to the corresponding Municipal Environmental Unit.

- 4.21 **Tracking and reporting trends.** Key indicators of environmental quality (e.g., terrestrial and marine water quality, reef health) that relate to the Program's objectives, specific components and activities have been selected for a network of sites on all four islands. The network includes urban, urbanizing and undeveloped sites that will serve as control and will be monitored and reported periodically as part of a 'sustainable tourism' report card by the Commission for Sustainable Tourism. This will be widely broadcast in the local media and other public venues during execution.
- 4.22 **Multi-cultural approach to public outreach and participation.** Incorporated into the budget for Component I, this includes advance, grassroots campaigns in isolated and/or poor communities, often with the highest illiteracy rates and in greatest need of information on property rights, basic services, health, environment and local risk management. Communication techniques will be tailored to the needs of traditional groups, including the Garifuna, women heads of households, and vulnerable groups. Socio-cultural guidelines for the conduct of the campaigns based on local case studies in potable water, land rights and protected area use were developed during preparation. A social anthropologist will be hired to provide short-term technical assistance for the design of the campaigns.
- 4.23 Key costs that can be allocated for the implementation of the ESMP are: (i) salaries for the PCU personnel responsible for environmental management and social promotion; (ii) equipment, laboratory analyses and technical assistance for monitoring water quality and other environmental/socio-cultural parameters; (iii) environmental audits; (iv) the EIA for the sanitary landfill; and (v) an estimated cost for strengthening the Municipal Environmental Units. The costs of all environmental and social mitigation measures have been included in the budgets for specific construction projects, based on preliminary designs and costs documented during the first stage of the PMAIB. The assigned costs are not transferable to other budget categories.

### **3. Public participation**

- 4.24 Stakeholders from the public and private sectors as well as civil society were consulted throughout project preparation. Views on project design were sought during individual and group meetings with central government officials, all four municipalities and the corporations in full, various members of the local private sector, and neighborhood associations, NGOs, health officials, and local leaders. Information on the project's design and execution issues was made available at all meetings. In addition, the Commission on Sustainable Tourism held consultations in August 2002, in Roatán. Suggestions received during the consultation process have been incorporated into the program's design.
- 4.25 The participation strategy during execution emphasizes expanded public access to information, representation and involvement in execution. Key features of the strategy are as follows: (i) formal representation of local government and other local stakeholders in the Commission for Sustainable Tourism and on the Municipal Services Boards; (ii) representation of CBOs on the protected area management committees; (iii) involvement of CBOs and NGOs in the execution of awareness and education, and protected area management activities; (iv) the environmental and social oversight mechanism; and

(v) public dissemination of results on annual basis. The strategy also makes provisions for multi-lingual information campaigns using a variety of media designed to reach all affected groups including residents in isolated communities.

## **E. Risks**

- 4.26 Three key issues received special attention during preparation of this second stage. The first issue was the capacity of all four municipalities to coordinate their actions and to reach an agreement with the central government on the establishment of a sustainable arrangement for environmental management. To address this issue and minimize the risk of future conflicts, all municipalities received technical assistance and strengthening through a technical operation (ATN/KB-7787) aimed at building local ownership in the permanent, decentralized program. In addition, SECTUR undertook a systematic dialogue with municipalities on their expectations for a cooperative mechanism. This effort culminated in the creation of the Executive Commission for Sustainable Tourism that includes all four municipalities, the local private sector and key representation from central government. To further mitigate risks during execution, the Commission will receive technical assistance in carrying out a common work program and in establishing the financial mechanism that will ensure the sustainability of the environmental management program.
- 4.27 The second issue was the further expansion of basic services in the municipalities of Roatán and José Santos Guardiola simultaneous with the establishment of the institutional arrangement for operation and maintenance of systems financed during the first stage. An institutional risk exists if the pace and sequence of constructing new systems exceed the managerial, technical and commercial capacity of the recently created Municipal Services administrations. Technical assistance will be provided to these administrations at the outset and prior to the expansion of the systems to mitigate this risk. The third issue was the uncertainty in projecting growth and urban development trends. A study was undertaken during project preparation of the factors underlying economic growth and land use changes in the archipelago. In addition to improving projections of future demand for services, the results of the study will be used to build capacity within the Commission and the municipalities to analyze the full economic implications of growth.

## HONDURAS

### BAY ISLANDS ENVIRONMENTAL MANAGEMENT PROGRAM II (HO-0198) LOGICAL FRAMEWORK

NARRATIVE SUMMARY	VERIFIABLE INDICATORS	MEANS OF MEASUREMENT	ASSUMPTIONS
<p><b>Goal of program:</b></p> <p>Promote economic growth and competitiveness through environmentally and socially sustainable tourism in the Bay Islands.</p>	<ul style="list-style-type: none"> <li>Coastal water quality at popular diving sites remains stable or improves.</li> <li>Annual visitation numbers increase steadily and gradually.</li> <li>Revenues from environmental management surcharge increase steadily.</li> </ul>	<ul style="list-style-type: none"> <li>2000 baseline and monitoring data on water quality, reef health and land use collected during execution.</li> <li>SECTUR visitation statistics and annual reports</li> <li>Financial reports of the Commission for Sustainable Tourism</li> <li>PMAIB progress reports</li> </ul>	<ul style="list-style-type: none"> <li>National political commitment to decentralization in natural resources management is maintained.</li> <li>SECTUR maintains its policy of sustainable tourism.</li> </ul>
<p><b>Objective of program:</b></p> <p>Consolidate the environmental management program created during the first stage, setting in place a self-sustaining institutional framework at the departmental level, completing the coverage and quality of potable water, wastewater and solid waste management services, and strengthening local capacity to plan and manage tourism development and growth.</p>	<p><b>At project completion:</b></p> <ul style="list-style-type: none"> <li>Departmental zoning plan adopted by the Commission for Sustainable Tourism and internalized by the four municipalities through zoning ordinances and bylaws.</li> <li>12 protected areas brought under management (21,000 ha marine and 2,500 ha terrestrial).</li> <li>20,000 additional residents receiving improved water, wastewater and solid waste management services by municipality.</li> <li>Increase in collection of tariffs of water and sanitation services, revenue from protected marine areas, and real estate taxes.</li> <li>Four Municipal Action Plans Implemented.</li> <li>12,000 registry records reconciled with municipal cadastres</li> <li>Reductions in 5,000 parcels with multiple claims.</li> </ul>	<ul style="list-style-type: none"> <li>Coastal and surface water quality monitoring data collected by the Technical Unit as compared to 2000 baseline.</li> <li>Records maintained by the municipal environmental units.</li> <li>Municipal annual reports and financial data.</li> <li>PMAIB progress reports.</li> <li>Municipal cadastres and Departmental Property Registry data bases.</li> <li>Coral reef, sea-grass beds and mangrove databases.</li> <li>Satellite images.</li> </ul>	<ul style="list-style-type: none"> <li>Migration rates do not change dramatically.</li> <li>Municipal ordinances will be adopted regarding discharge of residual waters directly into the sea.</li> </ul>



NARRATIVE SUMMARY	VERIFIABLE INDICATORS	MEANS OF MEASUREMENT	ASSUMPTIONS
<b>COMPONENT 1: CONSOLIDATION OF THE REGIONAL, ENVIRONMENTAL MANAGEMENT SCHEME</b>			
<i>Sub-component 1.1 Strengthening of the Commission for Sustainable Tourism</i>	<ul style="list-style-type: none"> <li>Indicators to track the partnership's evolution, consolidation, local capacity and sustainability (to be defined).</li> <li>Entry into effect of environmental surcharge/entrance fee for the protected area system.</li> <li>Number of personnel trained in environmental management functions.</li> </ul>	<ul style="list-style-type: none"> <li>Minutes of the PMAIB Committee, Environmental Council and public municipal meetings.</li> <li>PMAIB progress reports.</li> </ul>	<ul style="list-style-type: none"> <li>Continued willingness on the part of the four municipal governments to participate in the program and join the partnership.</li> </ul>
<i>Sub-component 1.2 Investments for the regional system of marine and coastal protected areas</i>	<ul style="list-style-type: none"> <li>7 protected areas (4 marine and 3 terrestrial) brought under intensive management with improved infrastructure, demarcation of boundaries, comprehensive monitoring and on-site patrols, environmental education activities.</li> <li>Additional 5 protected areas demarcated with on-site patrols.</li> <li>4 no-take fisheries zones declared and patrolled.</li> <li>90 mooring buoys installed and maintained by dive groups.</li> <li>4 Fish Aggregating Devices installed and maintained by fishers groups</li> <li>Slope stabilization measures in 4 priority watersheds</li> </ul>	<ul style="list-style-type: none"> <li>2000 baseline and monitoring data to be collected during execution.</li> <li>Coastal and well water quality and discharge data.</li> <li>Records maintained by the municipal environmental units.</li> <li>PMAIB progress reports.</li> <li>Applications and inquiries submitted at PMAIB web site and office.</li> <li>Satellite images.</li> <li>Progress reports and evaluations of compliance of non-governmental operators in protected areas.</li> <li>Financial statements of the Environmental Council and its Technical Secretariat.</li> </ul>	<ul style="list-style-type: none"> <li>Migration rates do not change dramatically.</li> <li>Presence of CBOs and non-governmental operators with the capacity to submit and implement proposals.</li> <li>Existence of a regional mechanism to capture resources and financing for environmental management, natural resources and protected areas.</li> </ul>
<i>Sub-component 1.3 Public outreach, participation and local destination management.</i>	<ul style="list-style-type: none"> <li>Communication with, and participation by, local groups in support of sustainable tourism and environmental management.</li> <li>Participation rates of private sector operations in environmental best practice.</li> <li>Number of neighborhoods and communities involved in monitoring.</li> <li>Data transmission and management system established.</li> <li>HIV/AIDS-related interventions implemented with a focus on high-risk behavior.</li> <li>HIV/AIDS surveillance.</li> </ul>	<ul style="list-style-type: none"> <li>PMAIB progress reports.</li> <li>Records of private sector participation in training activities and award and recognition programs.</li> <li>Periodic reports of the data management system.</li> <li>Records of training events.</li> <li>Behavioral surveys</li> </ul>	<ul style="list-style-type: none"> <li>Local community recognizes the importance of sustainable tourism and environmental management.</li> <li>The fight against HIV/AIDS in the Bay Islands is a high priority for the Government.</li> </ul>

NARRATIVE SUMMARY	VERIFIABLE INDICATORS	MEANS OF MEASUREMENT	ASSUMPTIONS
<b>COMPONENT 2: EXPANSION OF ENVIRONMENTAL SANITATION SERVICES</b>			
<i>Sub-component 2.1 Rehabilitation and construction of water supply, wastewater treatment and solid waste facilities</i>	<ul style="list-style-type: none"> <li>Number of additional households receiving improved sanitation services by municipality.</li> <li>Control in the development of new wells.</li> </ul>	<ul style="list-style-type: none"> <li>Reports from engineering supervision and PMAIB progress reports.</li> <li>Records maintained by the municipal environmental units.</li> <li>Water quality monitoring reports</li> </ul>	<ul style="list-style-type: none"> <li>Migration rates do not change dramatically.</li> </ul>
<i>Sub-component 2.2 Strengthening of capacity for the provision and maintenance of sanitation services</i>	<ul style="list-style-type: none"> <li>Agreement over an option for the provision of basic sanitation services involving all four municipalities.</li> <li>Formal transfer of assets and responsibilities to entity.</li> </ul>	<ul style="list-style-type: none"> <li>PMAIB progress reports.</li> <li>Approved/certified minutes of participating municipalities.</li> <li>Acts of transfer of National Property.</li> </ul>	<ul style="list-style-type: none"> <li>Agreement can be reached by all four municipalities to shift to a option for the provision of at least some of the services.</li> </ul>
<b>COMPONENT 3: MUNICIPAL STRENGTHENING AND LAND MANAGEMENT</b>			
<i>Sub-component 3.1 Municipal capacity building</i>	<ul style="list-style-type: none"> <li>Approval and validation of the Municipal Capacity Building Plans.</li> <li>Improved performance of Municipal Environment and Cadaster units.</li> <li>20% increases in coverage and quality of municipal services.</li> <li>30% increase in total municipal revenues, net revenues and financial disclosure.</li> </ul>	<ul style="list-style-type: none"> <li>Performance indicators specified in the Municipal Capacity Building Plans</li> <li>Records maintained by the Municipal Environment and Cadaster units.</li> <li>Municipal annual reports and financial data.</li> </ul>	<ul style="list-style-type: none"> <li>Continued willingness on the part of the four municipal governments to participate in the program and seek technical assistance.</li> </ul>
<i>Sub-component 3.2 Modernization of the departmental property registry system</i>	<ul style="list-style-type: none"> <li>100% of the registry inscriptions converted to new system.</li> <li>Increase in registrations of non-documented property by income group.</li> <li>40% reduction in time required for registration and other services.</li> <li>User fee for services introduced and collected.</li> <li>Municipal cadastre offices inter-connected with the Land Property Registry System.</li> <li>Satellite network operating.</li> </ul>	<ul style="list-style-type: none"> <li>Records of the Departmental registry.</li> <li>Records maintained by municipal cadastre units.</li> <li>PMAIB progress reports.</li> <li>Inter-institutional agreements.</li> <li>Approved/certified minutes of municipalities.</li> </ul>	<ul style="list-style-type: none"> <li>Government maintains high priority for implementing new Registry system with the Department of the Bay Islands as pilot initiative.</li> </ul>

## HO-0198 PROCUREMENT PLAN

No.	COMPONENT	Amount US\$000	Modality	Publication date (Trimester)
<b>COMPONENT 1 CONSOLIDATION OF THE REGIONAL ENVIRONMENTAL MANAGEMENT SCHEME</b>				
	<i>SERVICES</i>			
1.a	Individual consultant advisory services for the Executive Commission and Technical Secretariat (no. bids: various – 18 months)	45	NCB	All years
1.b	Legal advisory services for the Executive Commission (no. bids: various – 12 months)	36	NCB	All years
1.c	Professional consulting firm services for institutional strengthening, implementation of the regional plan and PAM's	200	LPI	11/03
1.d	Professional consulting firm services to strengthen co-management of the PA system (no. bids: 1)	200	ICB	II/03
1.e	Provision of co-management services in marine and terrestrial protected areas (no. bids: various under US\$200.000)	1,330	NCB	III/03
1.f	Laboratory services for water quality analyses	64	NCB	All years
1.g	Technical assistance in conflict management and monitoring of socio-cultural indicators (individual consultancies – 6 m)	20	NCB	All years
1.h	Bay Islands Businesses for the Environment Initiative (consulting firm)	328	ICB	III/03
1.i	Strengthening the HIV/AIDS data transmission and management system and HIV/AIDS related capacities of local health providers (individual consultants).	42	NCB	II/03
1.j	Local capacity building for HIV/AIDS related interventions with a focus on high-risk behavior (consulting firm)	178	NCB	II/03
	<i>WORKS</i>			
1.k	Erosion control works in Roatán (no. bids: 1)	174	NCB	IV/03
1.l	Mooring buoy installation (no. bids: 1)	42	NCB	IV/03
1.m	Fish aggregating device (FAD) installation (no. bids: 1)	20	NCB	IV/03
	<b>SUBTOTAL</b>	<b>2,679</b>		
<b>COMPONENT 2 EXTENSION OF ENVIRONMENTAL SANITATION SERVICES</b>				
	<i>SERVICES</i>			
2.a	AS Utila, AP AS Punta Gorda Politilly bight	200	ICB	II/03
2.b	AP/DS/AS Savannah Bight/East End	25		
2.c	Tariff study AP/AS Utila y Guanaja	30	NCB	II/03
2.d	Advisory services to Municipal Basic Services Councils (Juntas Municipales de Servicios)	50	NCB	I/03
2.e	Supervision AS/ Utila /Individual consultant	50	NCB	I/04
2.f	Supervision AS/AP/DS Guanaja/Consulting firm	250	ICB	III/03

No.	COMPONENT	Amount US\$000	Modality	Publication date (Trimester)
2.g	Supervision AP/AS Isla de Roatán/Consulting firm	350	ICB	III/03
	Supervision DS Santos Guardiola			
	<i>WORKS</i>			
2.h	AS Utila (Utila Town/Cayitos)	1,000	ICB	I/04
2.i	AP/AS/DS Savannah Bight/East End (Guanaja)	600	NCB	I/04
2.j	AP/AS Politilly Bay / Punta Gorda	450	NCB	I/04
2.k	AS Cayo (Guanaja)	870	NCB	I/03
2.l	AP/AS Los Fuertes (Roatán)	1,520	ICB	I/03
	AP/AS Flowers Bay / West End (Roatán)			
2.m	DS Santos Guardiola	780	NCB	I/03
	<i>GOODS</i>			
2.n	Water meters	150	ICB	II/03
2.o	Sanitary landfill operating equipment (Santos Guardiola)	500	ICB	III/03
2.p	Sanitary landfill operating equipment (Savannah Bight)	50	NCB	III/03
	<b>SUBTOTAL</b>	<b>6,875</b>		
<b>COMPONENT 3 MUNICIPAL STRENGTHENING AND MODERNIZATION OF THE PROPERTY REGISTRY</b>				
	<i>SERVICES</i>			
3.a	Professional advisory services in municipal strengthening (no. bids: 1)	600	ICB	II/03
3.b	Diagnostic, business review process and redesign of property registry system (consulting firm)	400	ICB	I/03
3.c	Inter-island telecommunication services (WAN)	300	ICB	II/03
	<i>GOODS</i>			
3.d	IT and office furniture equipment to implement PAMs (no. bids: 1)	200	NCB	IV/03
3.e	Acquisition of data processing and networking equipment for registry and catastral offices	90	NCB	II/03
	<i>WORKS</i>			
3.f	Priority investments (no. bids: 12)	800	NCB	IV/04
	<b>SUBTOTAL</b>	<b>2,390</b>		
<b>4</b>	<b>Auditing</b>			
4.a	Professional firm for financial auditing services (no. bids: 1)	36	NCB	I/03
	<b>SUBTOTAL</b>	<b>36</b>		
	<b>TOTAL</b>	<b>11,980</b>		

ICB	International competitive bidding
NCB	National competitive bidding
AP	Potable water services
AS	Wastewater services
DS	Solid waste services